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THE FRAMINGHAM STUDY

An Epidemiological Investigation of Cardiovascular Disease

Section 30

Some Characteristics Related to the Incidence of Cardiovascular Disease and Death: Framingham Study, 18-year Follow-up

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Section 30. Some Characteristics Related to the Incidence of Cardiovascular Disease and Death: Framingham Study, 18-year Follow-up

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Section 30

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SOME CHARACTERISTICS RELATED TO THE INCIDENCE OF CARDIOVASCULAR DISEASE AND DEATH: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

Since 1948 the Framingham Study has followed a sample of adult residents of the town of Framingham, Massachusetts. A standardized clinic examination was repeated at two-year intervals. By this means a wide variety of information has been collected about the characteristics of people in the Study cohort both before and after the development of cardiovascular disease, as well as a standardized clinical evaluation of changes in their cardiovascular status. In addition, information about death and the development and course of disease has been obtained from a number of sources outside the clinic.

The design and execution of the Study were described in Sections 1 and 2 of this monograph. For some characteristics determined at examination mean values are given for the first seven examinations in Sections 3 and 4, and bivariate correlations are given for the second examination in Section 5. The incidence of various events is given in Sections 6, 7, and 8. Criteria for events are given in Section 8, and a description of the characteristics in Section 3. These are repeated and updated in

Section 26 and in this report.

The characteristics presented are those determined on Exams 1 and 9 and on all or most of the intervening clinic examinations. Other characteristics have been evaluated on only a few examinations and have not been included in this monograph.

The major concern of the Study has been to evaluate the relationship of characteristics determined in well persons to the subsequent development of disease. This is done in a systematic fashion on Sections 9 through 22 of this monograph series, using the 14 year follow-up. The same general material updated to include 16 years' follow-up is included in Sections 26 and 27.

Like Sections 9 through 22 and 26 this section is exclusively a display of data. We hope subsequently to summarize some of the key findings but we feel an obligation to provide a detailed display of this information now for those who wish to use them for program planning and for evaluation of their own data.

The tables in this section show the relationship of a given characteristic, as measured in a population of persons free of disease, to the subsequent development of that disease. Each table shows (by sex, age, and level of char-

acteristic) the population at risk, the number of these persons developing the disease, and the ratio of these two numbers (the incidence rate). Further, the table shows, by sex and age, the parameters of a curve, called the logistic function, fitted to the observations (the value of the characteristic at the beginning of the interval and the occurrence of the disease within the interval constituting an observation of an individual). Both univariate and multivariate functions are included.

The incidence tables deal with the incidence between one examination and the next, a two-year period. After being characterized at entry into the Study, persons are characterized anew at each following biennial examination and are shifted from one age group to the next as they grow older. The sum of the experience in the nine intervals of the 18-year follow-up is expressed as an average annual incidence rate. Thus, individual persons frequently contribute experience to two different ten-year age groups. By this means we can expand the age-specific experience, using reexamination as a substitute for a much larger original cohort.

The criteria for the events and descriptions of the characteristics are given after an explanation of the statistics presented in the tables.

DESCRIPTION OF TABLES

The tables in Section 30 present data for 14 events and 18 characteristics. The indexing scheme for the events and characteristics is as follows:

The 14 events and their index numbers are:

1 Coronary heart disease
2 Coronary heart disease other than angina pectoris
3 Myocardial infarction
4 Coronary insufficiency
5 Angina pectoris uncomplicated
6 Coronary heart disease death
7 Sudden death from coronary heart disease
8 Cerebrovascular accident
9 Atherothrombotic brain infarction
10 Intermittent claudication
11 Congestive heart failure
12 Death
13 Death from cardiovascular disease
14 Cardiovascular disease

The 18 characteristics and their index numbers are:

1 Blood pressure, first examiner, systolic (mm Hg)
2 Blood pressure, first examiner, diastolic (mm Hg)
3 Serum cholesterol (mg/dl)
4 Phospholipid (mg/dl)
5 Blood glucose (mg/dl)
6 Metropolitan relative weight (percent)
7 Vital capacity-height index (ml/inch)
8 Pulse rate (per minute)
9 Cigarettes smoked (number per day)
10 Hypertension
11 Heart enlargement by x-ray
12 Left ventricular hypertrophy by electrocardiogram
13 Intraventricular conduction defect (with QRS interval more than 0.11 second)
14 Definite nonspecific T-wave or ST-segment abnormality by electrocardiogram
15 Albumin in urine, definite
16 Glucose in urine, definite or trace
17 Diabetes mellitus
18 Glucose intolerance

The numbering scheme for the tables puts the number for the event first, then the number for the characteristic. The levels shown for the characteristic in the stub of a table cover the range of the characteristic, from the lowest to the highest value observed in the first nine examinations. The table for vital capacity-height index (characteristic 7) is the only one to show a different range of values in the stubs for men and women. In general a subject is characterized by his value at exam. If that value is unknown, he is assigned the value at the next earlier exam at which the characteristic has a known value.

Exception to the general rule occurs for diabetes mellitus (characteristic 17). If diabetes is diagnosed at some examination, the subject retains this diagnosis on subsequent examinations.

A table takes into account characterizations on all of the first nine examinations and the incidence of the event in the nine biennial intervals of the 18-year follow-up and consolidates this into average annual incidence rate by age, sex, and level of characteristic. The statistics shown are:

1) Person years

On each of the first nine examinations there are a number of persons in a specified sex-age group at risk of developing the event. These numbers are summed and this is multiplied by two, because the interval between examinations is two years, and the result is labeled "person years." (A person included in an age group may contribute from 2 to 10 person years in that age group. There is, therefore, no way of arriving at counts of people from these tables. Section 9 of this series gives counts of persons, distributed by various characteristics for the first seven examinations.) Contrary to the usual implication of "person years", no account is taken of the fact that some persons are not at risk the full two years following an examination, either because they develop the event or die in the interval. Because some of the subjects in the Study were not at risk of death at Exam 1 -- they were added to the Study at Exam 2 -- they are excluded from the population at risk at Exam 1 if the event involves death (events 6, 7, 12, and 13). See Section 1, page 1g-1, for a description of this group of subjects called volunteers.

The number of subjects at risk is defined differently for different events. All persons alive at a specified exam are included for the next two years in the population at risk of death (events 12 and 13), with the exception noted above for Exam 1. Subjects with preexisting coronary heart disease at Exam 1 or with definite coronary heart disease developed before any exam are excluded from the population at risk at that exam and subsequent exams wheré the event is coronary heart disease or one of its manifestations (events 1 to 7). Subjects with definite or doubtful cerebrovascular accident at Exam 1 or with definite cerebrovascular accident developed before any later exam are excluded from the population at risk at that exam and subsquent exams if the event is cerebrovascular accident or atherothrombotic brain infarction (events 8 and 9). Subjects with definite intermittent claudication at Exam 1 or with definite intermittent claudication developed before any exam are excluded from the population at risk of intermittent claudication (event 10). Subjects with definite or doubtful congestive heart failure at Exam 1 or with definite congestive heart failure developed before any exam are excluded from the population

at risk of congestive heart failure (event 11). Subjects with preexisting coronary heart disease, cerebrovascular accident, intermittent claudication, congestive heart failure, or rheumatic heart disease at Exam 1 or with definite coronary heart disease, cerebrovascular accident, intermittent claudication, or congestive heart failure developed before any later exam are excluded from the population at risk of cardiovascular disease (event 14) at that exam and subsequent exams.

2) Events

This is the number of subjects in the population at risk at an examination who develop the event in the interval between that examination and the next. The numbers developing the event in each of the two-year intervals are summed for the first nine examination intervals.

3) Rate

The rate is given as the number of events per 10,000 person years and is obtained by taking half the average two-year incidence rate for the first nine examinations.

4) Smoothed rate

The smoothed incidence rate is based on the probability of developing the event in the two years following examina-

tion. The probability is calculated according to the value of the characteristic at exam, using the estimates of the regression coefficient and the intercept of the logistic function derived from data for the sex-age group. For example, in Table 1-1 for men aged 45-54 at exam the regression coefficient is 0.01557 and the intercept is -6.05837. The probability of a man in this age group with a systolic blood pressure of 175 mm Hg developing coronary heart disease in a two-year period is 0.03444, as calculated from the univariate logistic function, $p(175) = 1/(1 + \exp - (a + bx))$, where $a = -6.05837$, $b = 0.01557$ and x (in this case, the systolic pressure) = 175. This number $p(175)$ is divided by two to express the two-year incidence as an annual rate and multiplied by 10,000 to give a rate of 172.2 per 10,000 per year. The observed rate is shown as 180 for level 170-179 in Table 1.1, and the smoothed rate for 170-179 is taken to correspond to that for value 175, namely, 172.2 per 10,000 per year.

For characteristics 1 to 8 ten smoothed rates are shown for each sex-age group. The values of the characteristic used for calculating the smoothed rate are the midpoints of the intervals shown in the stub of the table -- except that

for the first and last intervals it is assumed that they have the same width as all the other intervals and the midpoint for them is chosen on that assumption.

Values have been assigned for the discrete variables. The levels are 0, 1, 2, and 3 for cigarettes smoked (characteristic 9); 0, 1, 2 for hypertension, heart enlargement by x-ray, and left ventricular hypertrophy by electrocardiogram (characteristics 10, 11, and 12); 0 and 1 for the six dichotomous variables (characteristics 13, 14, 15, 16, 17, and 18). These values are used in calculating the regression coefficient and intercept for a given characteristic-event pair and in calculating the smoothed rate.

5) Crude rate, actual

The number of events divided by the number of person years for the three age groups combined, when multiplied by 10,000, is shown as the crude rate for the age span 45 to 74 years.

6) Crude rate, smoothed

The smoothed rate shown for age span 45-74 years is calculated in the same manner as for a ten-year age group. In Table 1-1, for example, for men aged 45-74 the regression coefficient is 0.017381 and the intercept is

-5.955423. The smoothed rate for systolic blood pressure of 175 mm Hg is (10,000/2)/ (1 + exp(5.955423 - 0.017381 x 175)) = 257.4. (The values shown in the table for the logistic parameters are rounded to 0.01738 and -5.95542.)

7) Age-adjusted rate

The age-adjusted rate is a smoothed incidence rate based on the probability of a sixty-year-old person developing the event in the two years following examination. To calculate this probability a bivariate logistic function was estimated for the age group 45-74 with age and the value of the characteristic as the two variables. This computation yields a rigorous test of significance for trend after allowing for age differences. From this the probability for each observation was calculated using the observed value of the characteristic but assigning age 60 years in every case. Adjustment to the actual incidence was made by multiplying each probability by the ratio of the actual number of cases to the sum of the estimated probabilities. The usual age adjustment involves no smoothing but otherwise the results are comparable. For those preferring one of the usual types of age adjustment, sufficient information is tabled for that purpose.

For example, in Table 1-1 for men aged 45-74 the regression coefficient for systolic blood pressure is 0.015124 and for age is 0.037931 (not shown) and the intercept is -7.771106 (not shown). The number of men at risk at the beginning of the nine biennial intervals is 13,015. For each of these 13,015 men the probability is calculated as if he was age 60 years:

$$P = 1/\ (1 + \exp(7.771106 - 0.015124X - 0.037931\ X\ 60))$$

where X is the value for systolic blood pressure of that man. The sum of these 13,015 probabilities is 434.423626. The actual number of cases for the age group 45-74 is 383. The average annual age-adjusted rate per 10,000 men with systolic blood pressure of 175 mm Hg is:

$$(10{,}000/2)(383/434.423626)/\ (1 + \exp\ (7.771106 - 0.015124x175 - 0.037931x60)) = 241.4$$

The figure 241.4 is shown in Table 1.1 as the age-adjusted rate for men aged 45-74 with a systolic blood pressure of 175, the midpoint of the 170-179 level.

The values of the characteristic used for calculating the age-adjusted rate for an interval are the same as those used for calculating the smoothed rate -- see 4) above.

8) Regression coefficient of the logistic function

The regression coefficient of the logistic function is calculated by the method of Walker-Duncan (Walker, S.H. and Duncan, D.B.: Estimation of the probability of an event as a function of several independent variables, Biometrika (1967), 54, 1 and 2, pages 167-179). This coefficient may be taken as representing the strength of the association between the characteristic and the event.

In the univariate case, the intercept A and the regression coefficient B are both shown in a table for each ten-year age group between 45 and 74 years and for the age span 45 to 74. The assumption, which appears reasonable for most of the event-characteristic pairs, is that the logistic function is an appropriate model for incidence:

$$P = 1/ (1 + \exp(-A-BX))$$

where P is the probability that the subject in the population at risk, characterized by known value X at exam, develops the event in the two-year period following the examination (Exam 1 through Exam 9). At each examination a person is assigned the age at that examination and the value of the characteristic determined at that examination. Thus a person may be counted several times in the same age

group but be assigned different values each time. Furthermore, since each person is growing older during period of follow-up he may move from one 10-year age group to the next and contribute information to more than one 10 year age group. See Section 26 of this monograph series for a more detailed presentation of the univariate case.

In the bivariate case, the intercept A and the regression coefficient C of age in years at exam are not shown in the table for age span 45 to 74, only the regression coefficient B of the characteristic:

$$P = 1/\ (1 + \exp(-A-BX-CY))$$

Here P is the probability that the subject in the population at risk, characterized at each exam by a known value X and age Y, develops the event in the two-year period following the examination (Exam 1 through Exam 9).

Another way to get a regression coefficient of the characteristic for age 45-74 taking age into account is to summarize the age-specific coefficients of the univariate logistic by a weighted average using the inverse of their variance as weights:

$$\text{Mean} = (B(1)/V(B(1)) + B(2)/V(B(2)) + B(3)/V(B(3)))/D$$

$$D = 1/V(B(1)) + 1/V(B(2)) + 1/V(B(3))$$

Standard error of mean = square root of 1/D.

To make comparisons between characteristics, the age-specific coefficient is first standardized by multiplying it by the population standard deviation of that characteristic and then the standardized coefficients for the three age groups are averaged as above.

The degree of dispersion around the average coefficient is measured by a chi-square statistic, the sum of the ratios of the squared difference between average coefficient and age-specific coefficient to the variance of the age-specific coefficient.

In the multivariate case, for age span 45-74 years, in addition to the specified characteristic and age a set of five risk factors appears:

$$P = 1/(1 + \exp(-A-BX-CY-\sum_i D(i)Z(i))).$$

Here P is the probability that the subject in the population at risk, characterized at exam by known values for the specified characteristic X, age Y, systolic blood pressure Z(1), serum cholesterol Z(2), cigarettes smoked Z(3), left ventricular hypertrophy by electrocardiogram Z(4), and glucose intolerance Z(5), develops the event in the two-year period following the examination (Exam 1 through Exam 9). When the characteristic specified in the table is one of the

five risk factors, Z(i), the multivariate logistic function involves six variables, not seven. When the characteristic specified in the table is diastolic blood pressure or hypertension, characteristic 2 or 10, systolic blood pressure is dropped from the set of variables; when the specified characteristic is blood glucose, glucose in urine, or diabetes mellitus, characteristic 5, 16, or 17, glucose intolerance is excluded.

The regression coefficient of the logistic function affords a measure of the association between increased risk of the event and elevated levels of the characteristic. The T-value, which is the ratio of the coefficient to its standard error, gives an indication whether the association is statistically significant.

CRITERIA FOR EVENTS

1. Coronary Heart Disease

A subject in the study was diagnosed as having developed coronary heart disease (CHD) if upon review of the case a panel of investigators agreed on a definite manifestation of CHD: myocardial infarction, coronary insufficiency, angina pectoris, sudden death from CHD, non-sudden death from CHD. Persons with pre-existing CHD at Exam 1 were excluded from the population at risk of developing CHD. Pre-existing CHD at Exam 1 was identified by any one of the following diagnoses at Exam 1: definite angina pectoris, definite history of myocardial infarction, definite myocardial infarction by electrocardiogram, doubtful myocardial infarction by electrocardiogram, definite coronary insufficiency by electrocardiogram and history.

The various manifestations of CHD are these:

Myocardial infarction (see 3)

Coronary insufficiency (see 4)

Angina pectoris

Brief recurrent chest discomfort of up to 15 minutes duration, precipitated by exertion or emotion and relieved by rest or by nitroglycerine, was regarded as angina pectoris (AP) if two physicians interviewing the subject

agreed that this condition was definitely present. This diagnosis was based on evaluation of a subjective manifestation; abnormality of the electrocardiographic tracing was not taken into account.

Sudden death from CHD (see 7)

Nonsudden death from CHD

If the terminal episode lasted longer than one hour, if the available information implied that the cause of death was probably CHD, and if no other cause could be ascribed, this was called nonsudden death from CHD. In making this diagnosis the review panel used prior clinical information as well as information concerning the final illness.

2. Coronary heart disease other than angina pectoris

Because an interest is often expressed in the incidence of "heart attacks," this category is established to represent the occurrence of myocardial infarction, coronary insufficiency, or death from coronary heart disease.

3. Myocardial infarction

Recent or acute myocardial infarction (MI) was designated when there were serial changes in the electrocardiograms indicating the evolution of an infarction, including: S-T segment elevation in the electrocardiographic tracing (ECG) associated with terminal inversion of T waves and the loss of

initial QRS potentials (that is, development of "pathologic" Q waves of 0.04 second duration or greater), followed by serial changes indicating reversion towards normal. An old or remote myocardial infarction was considered to be present when the electrocardiogram showed a stable pattern including a pathologic Q wave of 0.04 second or greater or loss of initial QRS potential (R wave) in those leads in which this would not be expected to occur. Also, an interim MI was indicated when changes from a previous tracing showed development of loss of R-wave potential or appearance of pathologic Q waves not otherwise explained. More weight was given to this finding if a T-wave abnormality was also associated.

Beginning in 1956, a hospital report for a subject showing a rise in the serum glutamic oxalacetic transaminase to a level of at least 60 units along with a history of prolonged ischemic chest pain was accepted as evidence of myocardial infarction. Subsequently, in 1962, pathologic elevation of another enzyme was included: lactic dehydrogenase greater than 500 units. At a later date, with a change in laboratory techniques, SGOT was abnormal at 50 and LDH at 200.

An autopsy report showing an acute, new, or recent infarction of the myocardium was accepted as evidence of myocardial infarction. Because it is not possible to date an old infarction found on autopsy such evidence was not used in the clinical diagnosis.

4. Coronary insufficiency

The coronary insufficiency syndrome was designated when a history of prolonged ischemic chest pain was accompanied by transient ischemic S-T segment and T-wave abnormality in the electrocardiographic tracing but not accompanied by development of Q-wave abnormality or by serum enzyme changes characteristic of muscle necrosis.

5. Angina pectoris uncomplicated

If angina pectoris (see 1) developed between two successive examinations but the person remained free of any other manifestation of coronary heart disease, the diagnosis was designated as angina pectoris uncomplicated.

6. Coronary heart disease death

Death from coronary heart disease was diagnosed as either sudden or nonsudden. Nonsudden death from coronary heart disease is defined under 1. Sudden death from coronary heart disease is defined under 7.

7. Sudden death from coronary heart disease

If a subject, apparently well, was observed to have died within a few minutes (operationally documented as under one hour) from onset of symptoms and if the cause of death could not reasonably be attributed on the basis of the full clinical information and the information concerning death to some potentially lethal disease other than coronary heart disease, this was called sudden death and was attributed to coronary heart disease.

8. Cerebrovascular Accident

The diagnosis of overt vascular disease of the brain was based on the occurrence of stroke. Minimal criteria for nonhemorrhagic stroke consisted of sudden onset of a localizing neurologic deficit (such as hemiparesis, aphasia, homonymous hemianopia); for stroke due to intracranial hemorrhage, a change in the state of consciousness, headache, and signs of meningeal irritation in association with a bloody spinal fluid under increased pressure whether with or without other localizing neurological deficits. A diag-

nosis of embolus to the brain was made if a source for embolus (that is, atrial fibrillation, rheumatic heart disease with mitral stenosis, recent myocardial infarction, bacterial endocarditis) was present, the clinical course consistent (that is, rapid onset and clearing, slightly bloody spinal fluid, a more localized deficit), or the occurrence of associated peripheral emboli elsewhere noted. A consultant neurologist and the clinical staff of the study reviewed hospital and clinic protocols. Starting with Exam 8 they have examined patients in the hospital with stroke.

9. Atherothrombotic brain infarction

Specifically, thrombotic brain infarction was defined as the sudden onset of a localizing neurologic deficit (for example, aphasia, homonymous hemianopia, a central type of facial weakness, hemiparesis) documented by a physician, lasting longer than 24 hours, in the absence of: 1) known source of embolism (atrial fibrillation, rheumatic heart disease with mitral stenosis, myocardial infarction within

preceding six months, bacterial endocarditis), 2) intracranial hemorrhage (intracerebral, subarachnoid), 3) known hypercoagulable states (for example, erythemia), 4) other disease processes causing focal brain deficits (brain tumor, subdural hematoma, hypoglycemia). All stroke data were evaluated by a neurologist.

10. Intermittent claudication

Minimum criteria for the entirely subjective diagnosis of intermittent claudication consisted of a cramping discomfort in the calf clearly provoked by walking but not present on taking the first few steps, with the pain appearing sooner when walking quickly or uphill and being relieved within a few minutes by rest. Interviews for symptoms of claudication were conducted by the physician using structured forms for uniformity of the assessment. In addition, a panel of investigators reviewed all cases suspected of claudication to confirm the diagnosis.

11. Congestive heart failure

A definite diagnosis of congestive heart failure required a minimum of two major or one major and two minor criteria, the criteria existing concurrently. The existence of other conditions was considered in evaluating the findings.

Major criteria:

1) Paroxysmal nocturnal dyspnea.
2) Distended neck veins (in other than the supine position).
3) Rales.
4) Increasing heart size by X-ray.
5) Acute pulmonary edema described in hospital record.
6) Ventricular S(3) gallop.
7) Increased venous pressure (greater than 16 cm H(2)O from right atrium).
8) Circulation time (greater than 24 seconds, arm to tongue).
9) Hepatojugular reflux.
10) Pulmonary edema, visceral congestion, cardiomegaly shown on autopsy.

Minor criteria:

1) Bilateral ankle edema.
2) Night cough.
3) Dyspnea on ordinary exertion.
4) Hepatomegaly.
5) Pleural effusion.
6) Decrease in vital capacity by one-third from maximum recorded.
7) Tachycardia (120 beats per minute or more).

Arbitrary major or minor criterion:

Weight loss (ten pounds or more in five days) while on therapy for congestive heart failure.

12. Death

The fact of death was supported by a death certificate. Additional information was obtained from records supplied by hospital, attending physician, pathologist, coroner, or family. A panel of staff physicians reviewed all evidence

to arrive at the cause of death.

13. Death from cardiovascular disease

The cause of death was any disease of the heart or blood vessels.

14. Cardiovascular disease

Cardiovascular disease is considered to have developed if there is a definite manifestation of coronary heart disease, intermittent claudication, congestive heart failure, or cerebrovascular accident in the absence of a previous manifestation of any of these diseases or rheumatic heart disease. Criteria for all these events have been given. A person having more than one cardiovascular manifestation within the followup period is counted as a case only at the time of the first event.

DESCRIPTION OF CHARACTERISTICS

1. Blood pressure, first examiner, systolic (mm Hg)
2. Blood pressure, first examiner, diastolic (mm Hg)

Systolic and diastolic readings in the left arm of the subject were taken with a mercurial sphygmomanometer and a 14-cm cuff long enough to fit the most obese arm. The recommendations of the American and British Heart Associations were followed for reading the pressure (see Standardization of Blood Pressure Readings, American Heart Journal, July 1939, 18:95). Palpatory method was used to check auscultatory systolic readings. Measurement was expressed in millimeters of mercury on the scale of the manometer. Although the original protocol did not specify the accuracy of the measurement to be employed most readings were made to the nearest even number. After Exam 5 this became the standard practice.

At the beginning of the Study two readings were taken on each subject: 1) admission blood pressure taken by the nurse and 2) final blood pressure taken by the examining physician. Beginning in April 1950 three readings were taken on each subject: 1) admission blood pressure taken

by the nurse, 2) blood pressure taken by the first examining physician at the start of his interview, and 3) another blood pressure taken at the end of the examination by a second physician after drawing blood. All of these pressures were taken on the left arm with the subject seated and the arm at heart level. In coding blood pressure at Exam 1 for subjects through Record Number 2938, the nurse's blood pressure is used as the reading by the first examing physician.

Minor changes in procedure have occurred in some earlier exams. A second blood pressure reading by the same examining physician has been substituted for a reading by a second examiner when a second observer was not present.

3. Serum cholesterol (mg/100ml)

At the beginning of the Study, serum cholesterol concentrations were determined by the colorimetric method of Sperry (Schoenheimer and Sperry: J. Biol. Chem. 106, 745, 1934. Sperry: Am. J. Clin. Path. & Tech. Supplement 2, 91, 1938). On December 12, 1952 after the start of Exam 2, the method of Abell-Kendall was adopted (Abell, L.L., Levy, B.B., Brodie, B.B., and Kendall, F.E., J. Biol. Chem. 195, 357-366, 1952).

4. Phospholipid (mg/100 ml)

The amount of phospholipid present in the serum of the subject's blood, in milligrams per 100 milliliters, was first determined using the technique of Schmidt, Benotti, Hershman, Thannhauser (J. Biol. Chem. 166, 505, 1946). Later the determination was based on the method of Youngberg, G.E., and Youngberg, M.V. (J. Lab. & Clin. Med. 16: 158-166, 1930) with colorimetric determinations of Fiske, C.H., and Subbarow, Y. (J. Biol. Chem. 66: 375-400,1925). Phospholipid was measured on Exams 1 to 4, 7 to 9 (not on exams 5 and 6).

5. Blood glucose (mg/100 ml)

The amount of glucose present in a casual specimen of the subject's whole blood (collected in a solution of potassium oxalate and sodium fluoride) was determined using the method of Nelson (Nelson, B., J. Biol. Chem. 153, 375, 1944; Somogyi, M., J. Biol. Chem. 160, 61, 1945; Somogyi, M., J. Biol. Chem. 160, 69, 1945). Blood glucose was measured on Exams 1 to 4, 6, 8, 9, and 10 (not on Exams 5 and 7).

6. Metropolitan relative weight (percent)

This relative weight at exam was computed for a subject by forming the ratio of his body weight at that exam to the desirable weight for his particular sex-height group according to standards set by the Metropolitan Life Insurance Company. The ratio is expressed as a whole number in percent. The reference weight, for a given sex-height group, is the midpoint of the range for medium frame shown in the table of desirable weights on page 12 of "Four Steps to Weight Control" (1969), distributed by the Metropolitan Life Insurance Company. By linear extrapolation, reference weights were assigned to those sex-height groups not covered by the Metropolitan table, women 55 inches and men 60 inches tall. Since the desirable weights are shown for persons with their clothes and shoes on, adjustments are made to apply the reference weight to the subjects in the Framingham Study, who were weighed without clothes and measured for height without shoes: five pounds are subtracted from the weight for men, four pounds for women; one inch was subtracted from the height

for men, two inches for women. The resulting set of reference weights is:

Height (inches)	Weight (pounds) Men	Weight (pounds) Women	Height (inches)	Weight (pounds) Men	Weight (pounds) Women
55		94	65	131	128
56		97	66	135	132
57		100	67	140	136
58		103	68	144	140
59		106	69	148	
60	116	109	70	152	
61	119	112	71	157	
62	122	116	72	161	
63	125	120	73	166	
64	128	124	74	170	

7. Vital capacity-height index (ml/inch)

A nurse or technician instructed the subject to take the deepest breath possible and exhale to the fullest extent into the tube of a water-sealed spirometer (Collins Vitalometer). Three trials were made for each subject; the highest reading was recorded. This measurement of vital capacity was read to the next lower 0.1 liter on the scale of the spirometer. The vital capacity in milliliters was divided by the subject's height in inches to get the vital capacity-height index.

8. Pulse rate (per minute)

The pulse rate is the ventricular rate as determined by the physician from the electrocardiogram made with the subject in the recumbent position. Electrocardiograms

were made at each exam and the ventricular rate was coded for data processing for all exams except 2 and 3.

9. Cigarettes smoked (number per day)

Histories of cigarette smoking were obtained on every exam except Exam 6. However, information from the first three exams was coded to represent usage at Exam 1, leaving Exams 2 and 3 uncoded. On the initial examinations there was no fixed rule for deciding whether a person was an ex-cigarette smoker, but persons who had only recently stopped were always considered still smoking. On later examinations anyone smoking cigarettes within a year was considered a current smoker. For current smoker, the number of cigarettes usually smoked each day was recorded. Additional details are given in Sections 3 and 26 of this series.

10. Hypertension

At examination, a subject had two blood pressure readings taken by the examining physician(s). If both readings were "abnormal" the subject had definite hypertension; if both readings were "normal" the subject had normotension; with any other combination of readings the subject had borderline hypertension.

A blood pressure reading was "abnormal" if either the systolic or the diastolic component was "abnormal". The reading was "normal" if both systolic and diastolic parts were "normal". A systolic pressure was called "normal" when under 140 mm Hg, "abnormal" when 160 or greater. A diastolic pressure was called "normal" when under 90 mm Hg, "abnormal" when 95 or greater.

When a subject had only one blood pressure reading taken by the examining physician, hypertensive status was determined on the basis of this one reading.

11. Heart enlargement by x-ray

Roentgenograms were taken at each exam with a Westinghouse Autoflex 300-milliampere X-ray unit and with a Machlett superdynamax tube. The subject was positioned erect in max-respiration phase with full anterior chest against the film cassette. The X-ray tube was placed at level of seventh thoracic vertebra, a distance of two meters from anode to film. The film size was 14 x 17 inches. Beginning in Exam 4 the machine was actuated by a device attached to the subject through electrodes applied to the left and right axillary margin at level of the seventh rib, to take the X-ray at the moment of

full diastole. (Peak of R wave plus 0.008 second to termination of exposure insured the shadow of the cardiac silhouette in full systole.) The transthoracic Lead I electrocardiographic tracing showing the point of X-ray exposure was printed at the top of the exposed X-ray film before development.

All films were interpreted by a roentgenology consultant who did not have access to clinical data on the subject before viewing his films. Beginning in early 1952 one consultant, Dr. Lloyd E. Hawes, viewed all films taken at the Framingham Heart Clinic and made the X-ray interpretations.

The diagnosis of left ventricular hypertrophy signified that this chamber was enlarged as shown by an extension of the left apex of the heart towards the left, an elevation of the apex and a squaring of the apex. The transverse diameter of the heart was usually more than half the transverse width of the chest. However, in a subject with a large chest the square prominent shape of the left apex of the heart may have signified left ventricular hypertrophy even with transverse diameter of the heart less than half the width of the chest. The

diagnosis of left ventricular hypertrophy could be made with normal measurement of the transverse diameter of the heart.

The diagnosis of generalized cardiac enlargement was made when the heart shadow was rounded and expanded both to the right and the left, giving an appearance not of left ventricular hypertrophy alone but of either a dilatation of all chambers or a dilatation of the atria and right ventricle as in mitral heart disease.

A diagnosis of generalized cardiac enlargement and left ventricular hypertrophy was made if the heart was rounded overall and enlarged, and the apex projected further out and was square and prominent.

A subject with heart enlargement had either generalized cardiac enlargement or left ventricular hypertrophy or both.

12. Left ventricular hypertrophy by electrocardiogram

Electrocardiograms were taken at each exam with a Sanborn Visocardiette. The subject was in the recumbent position. Thirteen leads were used, three standard, three augmented unipolar limb leads, and seven precordial leads of Wilson. See description of technique, pages 31 to 44, Katz, Electrocardiography, Lee and Febiger, Philadelphia, 1947.

Basically the criteria for definite and strongly suggestive evidence of myocardial disease were those listed on pages 194 and 195 of Burch and Winsor, Primer of Electrocardiography, Ed. 1, Lea and Febiger, Philadelphia, 1945.

Left ventricular hypertrophy consisted of a tracing exhibiting a slight prolongation of "ventricular activation time" (at least 0.05 second on the left) associated with R-wave potentials of at least 20 mm in standard leads, at least 11 mm in augmented unipolar leads, at least 25 mm in any deflection in precordial leads or at least 35 mm combining any V(1), V(2) S-wave deflection with R-wave deflections from V(5) or V(6). This had to be accompanied by depressed S-T segments or flattened to inverted T waves reflecting potentials from left precordial leads.

A category of possible left ventricular hypertrophy was designated when tracings exhibited characteristics similar to those above except in less striking degree or when not all were present. Increased R-wave potential without associated S-T and T-wave abnormality was included in this category.

13. Intraventricular conduction defect with QRS interval more than 0.11 second

Complete right intraventricular heart block was diagnosed when QRS duration exceeded 0.11 second and an R-R' wave was noted in any one or more right precordial leads, with a delayed peak of R' wave (equal to 0.03 second or greater) after onset of QRS complex, accompanied by broad S waves in left precordial leads and a corresponding broad S wave in Lead I. Complete left intraventricular heart block was designated when the QRS interval exceeded 0.11 second and tall slurred R waves were observed along with absent Q waves in any of the left precordial leads and a reciprocal deep S wave in the right precordial leads. The peak of the notched R' wave occurred at greater than 0.06 second after the onset of the QRS complex in one or more left precordial leads. Complete indeterminate intraventricular heart block was designated when the QRS interval was prolonged beyond 0.11 second and the characteristic changes indicative of either right or left intraventricular heart block were absent, but the lengthened QRS interval was not obtained at the expense of a shortened P-R interval

(as in the Wolff-Parkinson-White syndrome). No hemiblock or bifascicular block designations were distinguished.

14. Definite Nonspecific T-wave or ST-segment abnormality by electrocardiogram

Nonspecific abnormality was designated in the absence of a prominent R wave when there was ST-segment depression (exceeding one millimeter below the base line) and/or primary T-wave inversion or flattening. This diagnosis was not made if a more specific explanation could be made for these changes (such as intraventricular block, myocardial infarction, or left ventricular hypertrophy) or if the changes occurred in those leads where they are acceptable variations.

15. Albumin in urine, definite

Procedure for testing for the presence of albumin in a subject's freshly voided urine was as follows:

To 10 cc of urine in test tube add 2 cc reagent (Quantitest reagents: beta naphthalene sulphonic acid and glacial acetic acid). Allow to stand. Result is read in milligrams of albumin per 100 milliliters by comparing turbidity with standards in lighted rack. In coding the result of the turbidity comparison, definite urine albu-

min is 20 mg/100 ml or higher; trace urine albumin is 10 mg/100 ml.

This measurement, though made, was not coded for Exam 4.

16. Glucose in urine, definite or trace

Procedure for testing the presence of glucose in a subject's freshly voided urine was as follows:

To five drops of urine in test tube add 10 drops of water and one Clinitest tablet. Allow to stand 15 seconds after boiling has ceased and then read promptly. Compare color to chart provided with tablets. Read as: negative, 1+, 2+, 3+, or 4+.

In coding the result of the color comparison, definite urine glucose is 2+, 3+, or 4+; trace urine glucose is 1+.

17. Diabetes mellitus

A review was made of the records of all subjects with a history of diabetes or elevated blood glucose or glucose in urine at any exam, Exams 1 to 9. Out of this group a subject was diagnosed as having diabetes if he was under treatment by his private physician for diabetes or if he had a record of an abnormal glucose tolerance

test or if he had on at least two exams a casual blood glucose determination of 150 mg/100 ml or more.

Treatment by private physician meant that the subject was taking insulin or oral hypoglycemic agents. In addition, if the subject was taking oral agents, the diagnosis of diabetes was made only if records from the Framingham Study, private physician, or hospital showed several elevated blood glucose determinations before treatment started. For this purpose an elevated blood glucose meant a value of 150 mg/100 ml or higher.

The Study did not give subjects glucose tolerance tests; therefore the record of such tests had to be obtained from a private physician or hospital. The standard glucose tolerance test was taken as the ingestion of 100 grams of glucose after a 12-hour fast. The test was considered abnormal if the blood glucose concentration was 160 mg/100 ml or more at one hour after challenge, 140 or more at two hours, and was still higher at three hours than when the test began.

18. Glucose intolerance

A subject was said to demonstrate glucose intolerance at examination if any one of the following conditions obtained:

a) A diagnosis of diabetes mellitus at that examination or any preceding examination;

b) A determination of glucose in the urine sample, either definite or trace by Clinitest, at that examination;

c) A measurement of the amount of glucose present in a casual specimen of whole blood equal to 120 milligrams or more per 100 milliliters at that examination.

TABLES

TABLE 1-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
074-109	826	4	48	59.3	542	4	74	104.7	144	1	69	137.0	60	79.1	86.8
110-119	2272	12	53	69.1	1144	12	105	124.1	284	5	176	149.4	78	93.8	100.7
120-129	2950	24	81	80.5	1750	23	131	147.0	420	8	190	162.9	107	111.3	116.7
130-139	2954	24	81	93.9	1776	33	186	173.9	562	5	89	177.5	117	131.8	135.2
140-149	1944	28	144	109.3	1428	27	189	205.6	530	16	302	193.4	182	156.1	156.5
150-159	1166	15	129	127.3	1004	28	279	242.7	422	7	166	210.6	193	184.6	181.0
160-169	640	11	172	148.1	642	18	280	286.1	280	6	214	229.3	224	218.1	209.1
170-179	334	6	180	172.2	464	20	431	336.7	152	3	197	249.6	305	257.4	241.4
180-189	224	3	134	200.0	268	9	336	395.6	112	3	268	271.6	248	303.3	278.3
190-300	204	3	147	232.2	398	18	452	463.7	194	7	361	295.3	352	356.8	320.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
074-109	1578	4	25	15.3	518	1	19	38.0	100	0	0	56.0	23	26.3	31.9
110-119	3042	4	13	18.3	1242	4	32	46.1	266	1	38	66.7	20	32.7	38.2
120-129	3462	7	20	21.9	1810	11	61	56.0	382	4	105	79.4	39	40.7	45.8
130-139	3442	7	20	26.2	2262	13	57	67.8	674	6	89	94.5	41	50.6	54.9
140-149	2134	7	33	31.4	1932	15	78	82.2	774	10	129	112.3	66	62.8	65.8
150-159	1516	6	40	37.6	1728	15	87	99.5	716	10	140	133.5	78	77.9	78.7
160-169	874	5	57	45.0	1256	16	127	120.4	574	4	70	158.5	92	96.7	94.2
170-179	562	4	71	53.8	870	19	218	145.6	470	4	85	188.0	142	119.8	112.6
180-189	410	3	73	64.3	630	9	143	175.8	302	13	430	222.8	186	148.3	134.5
190-300	436	3	69	76.9	858	23	268	212.0	470	16	340	263.7	238	183.3	160.5
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01557	0.01809	0.00385	0.00428	4.04	4.23	-6.05837	-7.68672
55-64	0.01738	0.01949	0.00261	0.00272	6.67	7.16	-5.66901	-6.91716
65-74	0.00890	0.01769	0.00464	0.00419	1.92	4.22	-4.50382	-6.33876
AVERAGE	0.01540	0.01876	0.00196	0.00201	7.87	9.31		
STANDARDIZED	0.35158	0.47763	0.04464	0.05139	7.88	9.29		
45-74, UNIVARIATE	0.01738	0.02192	0.00191	0.00186	9.09	11.76	-5.95542	-7.54338
45-74, BIVARIATE	0.01512	0.01828	0.00196	0.00204	7.71	8.97		
45-74, MULTIVARIATE	0.01204	0.01580	0.00217	0.00229	5.54	6.90		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.54 FOR MEN, 0.16 FOR WOMEN.

TABLE 1-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
020-069	832	7	84	58.6	734	10	136	131.7	354	3	85	141.5	104	94.8	93.8
070-074	1688	11	65	66.7	1304	24	184	147.7	520	12	231	156.1	134	106.6	105.7
075-079	1368	12	88	75.9	976	14	143	165.5	322	3	93	172.2	109	119.7	119.1
080-084	3320	22	66	86.3	2146	31	144	185.3	702	13	185	189.9	107	134.4	134.1
085-089	1814	15	83	98.1	1014	13	128	207.5	332	2	60	209.4	95	150.9	150.9
090-094	1896	21	111	111.6	1334	43	322	232.2	402	12	299	230.7	209	169.4	169.8
095-099	902	18	200	126.7	598	10	167	259.6	138	4	290	254.2	195	189.9	190.8
100-104	942	9	96	143.9	658	25	380	290.1	160	8	500	279.8	239	212.9	214.4
105-109	282	6	213	163.4	172	3	174	324.0	34	1	294	307.9	205	238.5	240.7
110-160	470	9	191	185.4	480	19	396	361.5	136	3	221	338.5	285	267.1	270.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
020-069	1600	5	31	15.4	880	5	57	54.5	402	3	75	91.3	45	38.2	40.2
070-074	2810	5	18	18.2	1678	13	77	62.6	588	9	153	102.6	53	44.5	46.3
075-079	1978	3	15	21.5	1220	13	107	71.9	424	6	142	115.4	61	51.8	53.3
080-084	4108	6	15	25.4	2890	17	59	82.5	1100	8	73	129.6	38	60.3	61.3
085-089	2074	5	24	30.0	1584	11	69	94.7	490	4	82	145.6	48	70.2	70.6
090-094	2216	10	45	35.4	2042	25	122	108.6	758	18	237	163.5	106	81.6	81.1
095-099	848	2	24	41.8	834	9	108	124.5	320	5	156	183.5	80	94.9	93.3
100-104	852	5	59	49.3	972	11	113	142.7	346	4	116	205.8	92	110.3	107.2
105-109	272	3	110	58.2	290	6	207	163.4	68	3	441	230.8	190	128.2	123.1
110-160	698	6	86	68.6	716	16	223	187.0	232	8	345	258.5	182	148.8	141.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02615	0.03343	0.00691	0.00907	3.78	3.69	-6.19893	-8.03528
55-64	0.02351	0.02800	0.00526	0.00618	4.47	4.53	-5.19676	-6.39783
65-74	0.02031	0.02391	0.00901	0.00879	2.25	2.72	-4.90723	-5.59850
AVERAGE	0.02374	0.02826	0.00380	0.00442	6.25	6.40		
STANDARDIZED	0.29951	0.36380	0.04778	0.05680	6.27	6.41		
45-74, UNIVARIATE	0.02380	0.03072	0.00385	0.00430	6.18	7.14	-5.55219	-6.94010
45-74, BIVARIATE	0.02447	0.02846	0.00378	0.00444	6.48	6.41		
45-74, MULTIVARIATE	0.02143	0.02289	0.00398	0.00478	5.38	4.79		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.27 FOR MEN, 0.57 FOR WOMEN.

TABLE 1-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
096-189	1564	6	38	56.8	1152	15	130	156.0	406	3	74	182.5	77	106.4	104.7
190-204	1346	10	74	64.8	992	12	121	166.9	382	10	262	186.9	118	115.9	114.5
205-219	1962	9	46	73.8	1212	27	223	178.6	404	12	297	191.4	134	126.2	125.2
220-234	1996	26	130	84.2	1464	31	212	191.1	478	12	251	196.1	175	137.5	136.9
235-249	1670	16	96	95.9	1294	27	209	204.4	370	5	135	200.8	144	149.7	149.6
250-264	1484	12	81	109.3	1154	20	173	218.6	350	5	143	205.7	124	162.9	163.5
265-279	1060	13	123	124.4	764	21	275	233.7	268	4	149	210.6	182	177.3	178.6
280-294	720	7	97	141.6	480	9	188	249.8	230	4	174	215.7	140	192.9	195.0
295-309	418	8	191	161.1	312	13	417	267.0	90	4	444	220.9	305	209.8	212.9
310-1124	602	17	282	183.2	338	8	237	285.3	102	2	196	226.3	259	228.1	232.3
UNKNOWN	692	6			254	9			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
096-189	1708	2	12	17.6	554	7	126	51.5	154	1	65	60.5	41	34.5	39.5
190-204	1656	3	18	19.1	702	3	43	57.4	206	1	49	69.9	27	39.2	43.9
205-219	2026	7	35	20.8	1030	6	58	63.9	352	1	28	80.7	41	44.5	48.7
220-234	2418	2	8	22.6	1582	11	70	71.1	526	9	171	93.2	49	50.6	54.1
235-249	2174	7	32	24.5	1558	9	58	79.1	604	7	116	107.5	53	57.5	60.0
250-264	1826	4	22	26.6	1702	11	65	88.1	632	6	95	124.1	50	65.3	66.6
265-279	1522	3	20	28.9	1608	17	106	98.0	664	10	151	143.1	79	74.1	73.9
280-294	1130	3	27	31.4	1298	14	108	109.0	476	6	126	164.9	79	84.1	82.0
295-309	734	5	68	34.1	940	15	160	121.2	350	8	229	189.9	138	95.5	90.9
310-1124	1292	6	46	37.0	1698	27	159	134.7	708	18	254	218.5	138	108.3	100.8
UNKNOWN	970	8			434	6			56	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00887	0.00551	0.00168	0.00187	5.28	2.94	-6.08441	-6.65013
55-64	0.00467	0.00724	0.00178	0.00182	2.63	3.98	-4.28864	-5.88619
65-74	0.00166	0.00976	0.00320	0.00259	0.52	3.76	-3.57670	-6.18384
AVERAGE	0.00622	0.00708	0.00114	0.00117	5.46	6.07		
STANDARDIZED	0.25471	0.32496	0.04715	0.05337	5.40	6.09		
45-74, UNIVARIATE	0.00584	0.00859	0.00115	0.00123	5.09	7.00	-4.89362	-6.53635
45-74, BIVARIATE	0.00614	0.00704	0.00116	0.00119	5.28	5.90		
45-74, MULTIVARIATE	0.00578	0.00655	0.00117	0.00118	4.95	5.55		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 5.27 FOR MEN, 1.77 FOR WOMEN.

TABLE 1-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
062-179	1806	10	55	60.2	1180	13	110	181.4	148	2	135	162.5	80	113.5	116.4
180-199	852	6	70	66.8	594	14	236	185.8	74	0	0	169.4	132	120.4	122.8
200-219	1076	10	93	74.1	744	12	161	190.4	224	3	134	176.5	122	127.8	129.6
220-239	1342	7	52	82.2	992	32	323	195.1	280	8	286	184.0	180	135.6	136.8
240-259	1820	22	121	91.1	1386	28	202	199.8	630	15	238	191.7	169	143.8	144.3
260-279	1826	15	82	101.0	1452	27	186	204.7	592	9	152	199.7	132	152.6	152.2
280-299	1564	18	115	111.9	1158	25	216	209.7	460	10	217	208.1	167	161.8	160.5
300-319	1056	7	66	124.0	818	15	183	214.9	374	8	214	216.8	133	171.6	169.3
320-339	774	10	129	137.4	408	8	196	220.1	210	4	190	225.9	158	181.9	178.5
340-968	644	17	264	152.2	406	9	222	225.5	86	2	233	235.3	246	192.9	188.2
UNKNOWN	754	8			278	9			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
062-179	2134	2	9	19.0	1078	8	74	57.7	90	1	111	56.1	33	34.6	43.0
180-199	896	2	22	20.2	614	2	33	63.4	68	1	147	65.2	32	39.4	47.0
200-219	1608	4	25	21.5	992	9	91	69.6	202	1	50	75.6	50	44.8	51.4
220-239	1662	6	36	22.9	1020	8	78	76.5	250	1	40	87.8	51	50.9	56.3
240-259	2192	5	23	24.4	1378	12	87	84.1	500	5	100	101.9	54	57.9	61.6
260-279	2300	8	35	26.0	1770	16	90	92.3	734	9	123	118.1	69	65.7	67.3
280-299	1914	4	21	27.6	1760	10	57	101.4	804	9	112	136.9	51	74.7	73.6
300-319	1648	3	18	29.4	1676	22	131	111.3	886	15	169	158.6	95	84.9	80.5
320-339	1006	3	30	31.3	1100	15	136	122.2	548	11	201	183.6	109	96.4	88.0
340-968	1022	4	39	33.4	1242	18	145	134.2	576	14	243	212.4	127	109.4	96.2
UNKNOWN	1074	9			476	6			70	1					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00526	0.00315	0.00137	0.00245	3.82	1.29	-5.30073	-6.10695
55-64	0.00126	0.00478	0.00128	0.00160	0.99	2.98	-3.49424	-5.26277
65-74	0.00214	0.00757	0.00290	0.00261	0.74	2.90	-3.75730	-5.76647
AVERAGE	0.00302	0.00497	0.00089	0.00119	3.39	4.17		
STANDARDIZED	0.17096	0.28907	0.05206	0.06772	3.28	4.27		
45-74, UNIVARIATE	0.00304	0.00647	0.00088	0.00109	3.46	5.96	-4.27881	-6.06602
45-74, BIVARIATE	0.00277	0.00455	0.00091	0.00119	3.04	3.81		
45-74, MULTIVARIATE	-0.00018	0.00127	0.00108	0.00144	-0.16	0.89		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.63 FOR MEN, 1.56 FOR WOMEN.

TABLE 1-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
029-059	376	5	133	83.0	276	11	399	191.5	68	0	0	161.1	222	128.6	131.7
060-069	2412	21	87	87.2	1476	24	163	195.5	518	10	193	171.1	125	134.6	136.7
070-079	4350	43	99	91.6	2858	52	182	199.5	908	19	209	181.7	140	140.7	142.0
080-089	3162	18	57	96.1	2296	44	192	203.6	694	10	144	193.0	117	147.2	147.4
090-099	1474	20	136	100.9	1126	30	266	207.7	452	8	177	204.9	190	154.0	153.1
100-109	590	5	85	106.0	488	13	266	212.0	154	3	195	217.5	170	161.0	158.9
110-119	276	3	109	111.2	252	4	159	216.3	64	2	313	230.8	152	168.4	165.0
120-129	116	2	172	116.8	138	3	217	220.8	58	4	690	244.9	288	176.1	171.3
130-139	72	2	278	122.6	70	1	143	225.3	52	0	0	259.9	155	184.1	177.8
140-524	254	6	236	128.6	252	6	238	229.9	106	5	472	275.7	278	192.5	184.6
UNKNOWN	432	5			184	4			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
029-059	348	1	29	15.9	274	1	36	80.3	72	1	139	118.2	43	51.1	54.1
060-069	2976	4	13	18.5	1698	28	165	84.3	556	9	162	125.1	78	55.8	58.1
070-079	5838	16	27	21.5	4058	26	64	88.6	1462	20	137	132.5	55	60.9	62.4
080-089	4418	12	27	25.0	3580	35	98	93.1	1242	15	121	140.3	67	66.4	66.9
090-099	1814	3	17	29.1	1606	10	62	97.7	626	13	208	148.6	64	72.4	71.8
100-109	696	0	0	33.9	718	4	56	102.7	326	5	153	157.3	52	79.0	77.1
110-119	334	2	60	39.4	298	6	201	107.8	124	1	81	166.5	119	86.2	82.7
120-129	116	0	0	45.9	222	2	90	113.3	110	0	0	176.2	45	94.0	88.7
130-139	50	0	0	53.3	66	1	152	118.9	40	0	0	186.4	64	102.5	95.2
140-524	188	5	266	62.0	286	7	245	124.9	124	3	242	197.3	251	111.8	102.1
UNKNOWN	678	7			300	6			46	1					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00497	0.01527	0.00264	0.00288	1.88	5.29	-4.35417	-6.59040
55-64	0.00212	0.00502	0.00250	0.00254	0.85	1.97	-3.33952	-4.39159
65-74	0.00623	0.00588	0.00280	0.00349	2.23	1.68	-3.74503	-4.04429
AVERAGE	0.00428	0.00867	0.00152	0.00167	2.81	5.18		
STANDARDIZED	0.11011	0.20751	0.03979	0.03775	2.77	5.50		
45-74, UNIVARIATE	0.00462	0.00883	0.00150	0.00159	3.09	5.56	-3.88858	-5.05891
45-74, BIVARIATE	0.00390	0.00718	0.00153	0.00169	2.54	4.24		
45-74, MULTIVARIATE	0.00328	0.00427	0.00158	0.00182	2.07	2.35		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.31 FOR MEN, 7.93 FOR WOMEN.

TABLE 1-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
065-099	1188	6	51	67.4	848	17	200	158.8	320	4	125	161.9	115	113.5	111.2
100-104	844	2	24	72.3	538	12	223	167.4	194	1	52	169.0	95	119.8	117.8
105-109	1248	10	80	77.7	776	9	116	176.5	292	10	342	176.4	125	126.4	124.9
110-114	1458	13	89	83.4	1144	20	175	186.0	358	3	84	184.1	122	133.4	132.3
115-119	1704	16	94	89.5	1302	22	169	196.0	410	13	317	192.1	149	140.7	140.1
120-124	1862	22	118	96.0	1360	27	199	206.5	422	8	190	200.5	156	148.5	148.4
125-129	1528	13	85	103.1	1050	21	200	217.5	320	4	125	209.2	131	156.6	157.2
130-134	1302	17	131	110.6	928	21	226	229.2	326	7	215	218.3	176	165.2	166.4
135-139	762	11	144	118.7	538	14	260	241.4	178	4	225	227.7	196	174.2	176.2
140-272	1616	20	124	127.3	930	29	312	254.2	280	7	250	237.5	198	183.7	186.5
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
065-099	2062	4	19	17.2	1050	6	57	69.4	472	9	191	152.3	53	50.3	53.2
100-104	1556	4	26	18.8	842	4	48	73.2	306	3	98	150.8	41	53.2	55.7
105-109	1970	1	5	20.5	1256	12	96	77.2	348	5	144	149.2	50	56.2	58.4
110-114	2064	4	19	22.4	1302	9	69	81.5	430	7	163	147.6	53	59.4	61.2
115-119	1964	7	36	24.5	1454	8	55	85.9	522	4	77	146.1	48	62.8	64.1
120-124	1708	4	23	26.8	1484	16	108	90.6	490	8	163	144.5	76	66.4	67.1
125-129	1404	3	21	29.3	1198	8	67	95.6	436	8	183	143.0	63	70.1	70.3
130-134	1058	3	28	32.0	986	14	142	100.8	322	4	124	141.5	89	74.1	73.7
135-139	874	6	69	34.9	764	15	196	106.3	328	4	122	140.0	127	78.3	77.1
140-272	2796	14	50	38.2	2770	34	123	112.1	1074	16	149	138.6	96	82.8	80.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT): REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01441	0.01780	0.00529	0.00471	2.73	3.78	-5.69820	-7.40393
55-64	0.01089	0.01086	0.00472	0.00343	2.31	3.16	-4.47928	-5.32238
65-74	0.00886	-0.00217	0.00807	0.00548	1.10	-0.40	-4.26129	-3.24874
AVERAGE	0.01188	0.01012	0.00323	0.00247	3.68	4.09		
STANDARDIZED	0.18592	0.22826	0.05060	0.05515	3.67	4.14		
45-74, UNIVARIATE	0.01103	0.01121	0.00320	0.00244	3.45	4.59	-4.83791	-5.68244
45-74, BIVARIATE	0.01190	0.00943	0.00322	0.00253	3.70	3.72		
45-74, MULTIVARIATE	0.01008	0.00243	0.00338	0.00287	2.98	0.84		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.41 FOR MEN, 7.74 FOR WOMEN.

TABLE 1-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
12-31	154	2	130	130.4	274	6	219	249.1	208	6	288	235.6	220	223.5	177.9
32-35	148	2	135	123.7	296	4	135	239.3	218	3	138	223.9	136	206.1	171.5
36-39	452	1	22	117.4	542	17	314	229.6	326	3	92	212.7	159	190.0	165.4
40-43	770	12	156	111.3	1018	20	196	220.7	506	13	257	202.0	196	175.1	159.5
44-47	1636	15	92	105.6	1558	36	231	211.9	544	16	294	191.9	179	161.4	153.8
48-51	1712	25	146	100.2	1494	33	221	203.5	492	6	122	182.2	173	148.7	148.2
52-55	2532	28	111	95.0	1646	31	188	195.4	396	8	202	173.0	146	137.0	142.9
56-59	2390	16	67	90.1	1254	26	207	187.6	236	4	169	164.3	119	126.1	137.8
60-63	1788	12	67	85.5	776	11	142	180.1	104	0	0	156.0	86	116.1	132.8
64-85	1924	16	83	81.0	530	8	151	172.9	56	1	179	148.1	100	106.9	128.0
UNKNOWN	8	1			28	0			14	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
04-19	82	0	0	105.0	256	5	195	177.5	260	5	192	208.6	167	205.4	133.1
20-23	194	2	103	82.5	378	2	53	154.0	282	6	213	186.9	117	161.8	116.0
24-27	390	3	77	64.7	834	10	120	133.5	562	11	196	167.4	134	127.2	101.0
28-31	972	4	41	50.8	1726	25	145	115.7	944	12	127	149.8	113	99.8	88.0
32-35	2156	7	32	39.8	2824	29	103	100.2	1144	18	157	134.1	88	78.3	76.6
36-39	3016	15	50	31.2	2760	26	94	86.8	800	7	88	119.9	73	61.3	66.6
40-43	4080	10	25	24.4	2318	19	82	75.1	458	5	109	107.2	50	48.0	58.0
44-47	3262	6	18	19.1	1258	7	56	65.0	200	3	150	95.9	34	37.5	50.4
48-51	2048	3	15	14.9	500	3	60	56.2	60	1	167	85.7	27	29.3	43.8
52-77	1238	0	0	11.7	238	0	0	48.6	18	0	0	76.6	0	22.9	38.1
UNKNOWN	18	0			14	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.01349	-0.06150	0.00972	0.01795	-1.39	-3.43	-3.21562	-2.73519
55-64	-0.01059	-0.03671	0.00801	0.01166	-1.32	-3.15	-2.63049	-2.64149
65-74	-0.01340	-0.02859	0.01445	0.01622	-0.93	-1.76	-2.60468	-2.61955
AVERAGE	-0.01202	-0.03994	0.00568	0.00837	-2.11	-4.77		
STANDARDIZED	-0.10904	-0.29681	0.05156	0.06223	-2.11	-4.77		
45-74, UNIVARIATE	-0.02115	-0.06194	0.00535	0.00753	-3.95	-8.23	-2.42761	-2.03535
45-74, BIVARIATE	-0.00947	-0.03535	0.00576	0.00856	-1.64	-4.13		
45-74, MULTIVARIATE	-0.00197	-0.02585	0.00602	0.00927	-0.33	-2.79		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.06 FOR MEN, 2.01 FOR WOMEN.

TABLE 1-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
37-63	2118	18	85	89.4	1800	28	156	171.6	516	9	174	175.9	124	130.4	129.5
64-67	1306	12	92	91.3	980	16	163	180.5	364	9	247	181.8	140	135.0	134.3
68-71	1824	15	82	93.2	1288	26	202	189.9	472	7	148	187.9	134	139.8	139.3
72-75	2572	25	97	95.2	1756	37	211	199.7	606	9	149	194.2	144	144.7	144.5
76-79	736	7	95	97.1	446	13	291	209.9	118	1	85	200.7	162	149.8	149.9
80-83	1628	20	123	99.2	1078	17	158	220.7	344	10	291	207.4	154	155.1	155.5
84-87	972	9	93	101.3	620	17	274	232.0	188	4	213	214.3	169	160.6	161.3
88-91	960	12	125	103.4	534	10	187	243.9	168	4	238	221.4	156	166.2	167.2
92-95	498	1	20	105.5	342	10	292	256.3	114	3	263	228.8	147	172.1	173.4
96-170	900	11	122	107.7	572	18	315	269.4	210	5	238	236.4	202	178.1	179.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
37-63	1744	4	23	27.3	1564	17	109	93.2	480	7	146	136.9	74	65.0	67.3
64-67	1548	6	39	27.6	1008	7	69	93.9	328	2	61	138.4	52	66.0	67.8
68-71	2294	9	39	28.0	1624	15	92	94.6	570	12	211	140.0	80	67.0	68.2
72-75	3474	9	26	28.3	2530	24	95	95.4	758	11	145	141.6	65	68.0	68.7
76-79	980	3	31	28.6	798	4	50	96.1	218	2	92	143.2	45	69.0	69.1
80-83	2300	4	17	29.0	1742	14	80	96.9	748	12	160	144.8	63	70.1	69.6
84-87	1568	6	38	29.3	1044	10	96	97.6	438	7	160	146.4	75	71.1	70.0
88-91	1252	1	8	29.7	976	17	174	98.4	398	3	75	148.1	80	72.2	70.5
92-95	778	3	39	30.0	636	8	126	99.2	256	2	78	149.7	78	73.3	70.9
96-170	1518	5	33	30.4	1184	10	84	99.9	534	10	187	151.4	77	74.4	71.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00528	0.00298	0.00696	0.01137	0.76	0.26	-4.33353	-5.38942
55-64	0.01309	0.00198	0.00533	0.00695	2.46	0.28	-4.14847	-4.08625
65-74	0.00856	0.00289	0.00940	0.00936	0.91	0.31	-3.84243	-3.74971
AVERAGE	0.00993	0.00243	0.00386	0.00501	2.57	0.49		
STANDARDIZED	0.12711	0.03109	0.04964	0.06396	2.56	0.49		
45-74, UNIVARIATE	0.00894	0.00381	0.00391	0.00503	2.28	0.76	-4.17439	-4.56621
45-74, BIVARIATE	0.00947	0.00166	0.00387	0.00502	2.45	0.33		
45-74, MULTIVARIATE	0.00081	-0.00455	0.00413	0.00534	0.20	-0.85		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.82 FOR MEN, 0.01 FOR WOMEN.

TABLE 1-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NONE	5114	31	61	64.3	4570	78	171	174.6	1868	36	193	181.4	126	126.7	115.5
UNDER 20	1912	14	73	83.2	1482	33	223	200.5	544	7	129	202.4	137	142.6	139.2
20	3124	43	138	107.4	1832	41	224	230.1	368	10	272	225.6	177	160.5	167.5
OVER 20	3296	40	121	138.5	1490	39	262	263.9	310	8	258	251.4	171	180.5	201.4
UNKNOWN	68	2			42	1			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NONE	9812	31	32	29.6	9212	92	100	101.0	3778	53	140	140.4	77	76.1	70.5
UNDER 20	4096	9	22	28.4	2264	22	97	90.6	626	8	128	147.3	56	62.3	68.0
20	2454	6	24	27.2	1080	9	83	81.2	220	6	273	154.5	56	51.0	65.5
OVER 20	1026	4	39	26.1	502	3	60	72.8	82	0	0	162.0	43	41.7	63.1
UNKNOWN	68	0			48	0			22	1					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.26093	-0.04220	0.07465	0.15732	3.50	-0.27	-4.34070	-5.12401
55-64	0.14386	-0.11138	0.06220	0.12105	2.31	-0.92	-3.31907	-3.88132
65-74	0.11363	0.04904	0.12081	0.18929	0.94	0.26	-3.27933	-3.54400
AVERAGE	0.18125	-0.05812	0.04444	0.08557	4.08	-0.68		
STANDARDIZED	0.20495	-0.04097	0.05109	0.06689	4.01	-0.61		
45-74, UNIVARIATE	0.12156	-0.20273	0.04293	0.08566	2.83	-2.37	-3.64944	-4.16944
45-74, BIVARIATE	0.19272	-0.03758	0.04416	0.08601	4.36	-0.44		
45-74, MULTIVARIATE	0.23544	0.03352	0.04541	0.08850	5.18	0.38		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.81 FOR MEN, 0.52 FOR WOMEN.

TABLE 1-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	7100	47	66	68.5	4330	54	125	136.6	1214	13	107	122.4	90	97.3	100.9
BORDER	4116	47	114	106.2	3028	75	248	213.6	1212	28	231	200.3	180	158.0	158.0
DEFINITE	2298	36	157	163.8	2058	63	306	331.2	674	20	297	324.4	237	254.5	245.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	9876	16	16	16.5	4886	21	43	52.8	1136	5	44	56.7	26	31.4	38.5
BORDER	4980	17	34	33.1	4696	53	113	92.5	1908	25	131	115.9	82	68.3	70.7
DEFINITE	2600	17	65	66.4	3524	52	148	161.1	1684	38	226	234.2	137	147.2	129.3
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.44562	0.70218	0.10954	0.17351	4.07	4.05	-4.27627	-5.71295
55-64	0.46314	0.56922	0.09092	0.11670	5.09	4.88	-3.57233	-4.54064
65-74	0.50833	0.72762	0.17066	0.18542	2.98	3.92	-3.68489	-4.46829
AVERAGE	0.46353	0.63571	0.06473	0.08584	7.16	7.41		
STANDARDIZED	0.35760	0.49219	0.04995	0.06628	7.16	7.43		
45-74, UNIVARIATE	0.49710	0.78410	0.06427	0.08300	7.73	9.45	-3.91990	-5.06365
45-74, BIVARIATE	0.46178	0.61664	0.06487	0.08663	7.12	7.12		
45-74, MULTIVARIATE	0.39055	0.50542	0.06902	0.09172	5.66	5.51		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.10 FOR MEN, 0.72 FOR WOMEN.

TABLE 1-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	11428	101	88	88.6	7252	133	183	183.1	2068	40	193	185.6	132	131.6	136.0
POSSIBLE	1002	12	120	115.6	992	23	232	236.9	448	6	134	206.3	168	175.5	168.3
DEFINITE	1076	16	149	150.6	1170	36	308	305.6	584	15	257	229.1	237	233.4	207.8
UNKNOWN	8	1			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	14118	35	25	24.1	8342	55	66	69.8	2264	30	133	119.5	49	49.0	56.7
POSSIBLE	1580	4	25	37.3	2068	29	140	108.7	884	7	79	145.8	88	83.4	79.9
DEFINITE	1746	11	63	57.6	2688	42	156	168.4	1580	31	196	177.6	140	141.5	112.3
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.27194	0.43844	0.12938	0.17601	2.10	2.49	-4.01562	-5.32928
55-64	0.26906	0.45011	0.09405	0.10017	2.86	4.49	-3.27012	-4.25689
65-74	0.10987	0.20398	0.15864	0.13676	0.69	1.49	-3.25583	-3.70960
AVERAGE	0.24011	0.37710	0.06859	0.07344	3.50	5.13		
STANDARDIZED	0.16248	0.30063	0.04580	0.05785	3.55	5.20		
45-74, UNIVARIATE	0.29713	0.53986	0.06778	0.07128	4.38	7.57	-3.61067	-4.61600
45-74, BIVARIATE	0.22098	0.34789	0.06925	0.07518	3.19	4.63		
45-74, MULTIVARIATE	0.13441	0.18444	0.07571	0.08269	1.78	2.23		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.83 FOR MEN, 2.25 FOR WOMEN.

TABLE 1-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	13074	122	93	93.4	8820	166	188	186.9	2896	51	176	176.7	137	136.5	138.2
POSSIBLE	254	4	157	145.0	358	10	279	345.8	82	3	366	326.3	245	260.2	245.5
DEFINITE	186	4	215	223.6	238	16	672	622.3	122	7	574	587.1	495	484.8	427.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	17144	47	27	27.3	12444	113	91	89.9	4394	57	130	130.8	64	63.8	65.6
POSSIBLE	200	1	50	67.2	382	4	105	160.5	174	5	287	232.0	132	140.2	120.2
DEFINITE	112	2	179	163.2	280	9	321	283.3	160	6	375	405.1	308	302.6	217.9
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.44974	0.90777	0.23296	0.35525	1.93	2.56	-3.96105	-5.20429
55-64	0.64895	0.59380	0.13395	0.17587	4.84	3.38	-3.24874	-3.99979
65-74	0.64491	0.59412	0.20479	0.20456	3.15	2.90	-3.30696	-3.61688
AVERAGE	0.61051	0.63270	0.10101	0.12485	6.04	5.07		
STANDARDIZED	0.20474	0.19838	0.03494	0.03891	5.86	5.10		
45-74, UNIVARIATE	0.67073	0.80329	0.09933	0.12326	6.75	6.52	-3.57293	-4.34908
45-74, BIVARIATE	0.60073	0.61904	0.10029	0.12587	5.99	4.92		
45-74, MULTIVARIATE	0.42960	0.31852	0.11175	0.14194	3.84	2.24		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.59 FOR MEN, 0.68 FOR WOMEN.

TABLE 1-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	13370	125	93	93.5	9202	185	201	201.0	2946	58	197	196.9	144	144.2	145.3
YES	144	5	347	347.2	214	7	327	327.1	154	3	195	194.8	293	293.0	238.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	17358	48	28	27.7	12898	119	92	92.3	4660	67	144	143.8	67	67.0	67.6
YES	98	2	204	204.1	208	7	337	336.5	68	1	147	147.1	267	267.4	216.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.36518	2.03491	0.47231	0.73636	2.89	2.76	-3.96043	-5.19191
55-64	0.51337	1.34513	0.39811	0.40215	1.29	3.34	-3.17263	-3.97393
65-74	-0.01101	0.02325	0.60398	1.02258	-0.02	0.02	-3.19444	-3.51975
AVERAGE	0.68930	1.34602	0.27183	0.33363	2.54	4.03		
STANDARDIZED	0.10583	0.14738	0.03610	0.03550	2.93	4.15		
45-74, UNIVARIATE	0.73990	1.42517	0.27132	0.33163	2.73	4.30	-3.51664	-4.29874
45-74, BIVARIATE	0.51742	1.20148	0.27419	0.33490	1.89	3.59		
45-74, MULTIVARIATE	0.58098	0.94605	0.27771	0.37449	2.09	2.53		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.59 FOR MEN, 2.55 FOR WOMEN.

TABLE 1-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHAPACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	12910	121	94	93.7	8812	173	196	196.3	2816	49	174	174.0	140	139.8	141.3
YES	604	9	149	149.0	604	19	315	314.6	284	12	423	422.5	268	268.1	242.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	16838	46	27	27.3	12282	115	94	93.6	4298	55	128	128.0	65	64.6	66.4
YES	618	4	65	64.7	824	11	133	133.5	430	13	302	302.3	150	149.6	118.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.47495	0.87011	0.35064	0.52454	1.35	1.66	-3.95790	-5.20413
55-64	0.49637	0.36284	0.24936	0.31979	1.99	1.13	-3.19737	-3.95891
65-74	0.94006	0.89618	0.33492	0.31707	2.81	2.83	-3.32268	-3.63950
AVERAGE	0.61050	0.66887	0.17373	0.20690	3.51	3.23		
STANDARDIZED	0.14205	0.15976	0.04206	0.05047	3.38	3.17		
45-74, UNIVARIATE	0.67801	0.85637	0.17151	0.20373	3.95	4.20	-3.54875	-4.33541
45-74, BIVARIATE	0.56430	0.59578	0.17287	0.20642	3.26	2.89		
45-74, MULTIVARIATE	0.24313	0.43742	0.18012	0.21280	1.35	2.06		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.33 FOR MEN, 1.58 FOR WOMEN.

TABLE 1-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	13260	124	94	93.5	9054	182	201	201.0	2956	58	196	196.2	144	144.0	145.0
YES	212	6	283	283.0	328	9	274	274.4	136	3	221	220.6	266	266.3	231.6
UNKNOWN	42	0			34	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	16852	46	27	27.3	12716	120	94	94.4	4574	63	138	137.7	67	67.1	66.8
YES	562	4	71	71.2	350	6	171	171.4	138	5	362	362.3	143	142.9	151.8
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.14679	0.96724	0.42998	0.52485	2.67	1.84	-3.96020	-5.20496
55-64	0.32657	0.61278	0.35112	0.42553	0.93	1.44	-3.17277	-3.95092
65-74	0.12219	1.01448	0.60553	0.48161	0.20	2.11	-3.19797	-3.56393
AVERAGE	0.56532	0.83698	0.24809	0.27253	2.28	3.07		
STANDARDIZED	0.10068	0.13919	0.03909	0.04566	2.58	3.05		
45-74, UNIVARIATE	0.63989	0.77155	0.24801	0.27028	2.58	2.85	-3.51784	-4.29791
45-74, BIVARIATE	0.48976	0.84218	0.24958	0.27229	1.96	3.09		
45-74, MULTIVARIATE	-0.04212	0.44300	0.27161	0.29787	-0.16	1.49		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.83 FOR MEN, 0.48 FOR WOMEN.

TABLE 1-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	13152	125	95	95.0	9080	180	198	198.2	2954	53	179	179.4	142	142.1	142.9
YES	324	5	154	154.3	302	11	364	364.2	138	8	580	579.7	314	314.1	289.1
UNKNOWN	38	0			34	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	17228	48	28	27.9	12844	120	93	93.4	4626	65	141	140.5	67	67.2	67.5
YES	188	2	106	106.4	226	6	265	265.5	86	3	349	348.8	220	220.0	193.7
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.49687	1.35571	0.46317	0.72926	1.07	1.86	-3.94368	-5.18435
55-64	0.64352	1.08006	0.32224	0.42954	2.00	2.51	-3.18727	-3.96113
65-74	1.25950	0.95314	0.40120	0.61169	3.14	1.56	-3.29093	-3.54341
AVERAGE	0.79682	1.09802	0.22084	0.31666	3.61	3.47		
STANDARDIZED	0.13487	0.13756	0.03912	0.03940	3.45	3.49		
45-74, UNIVARIATE	0.82904	1.21816	0.21757	0.31535	3.81	3.86	-3.53152	-4.29673
45-74, BIVARIATE	0.74086	1.08469	0.21872	0.31839	3.39	3.41		
45-74, MULTIVARIATE	0.63778	0.85680	0.23214	0.32925	2.75	2.60		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.98 FOR MEN, 0.18 FOR WOMEN.

TABLE 1-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	13116	124	95	94.5	8954	179	200	199.9	2888	53	184	183.5	143	142.6	143.8
YES	398	6	151	150.8	462	13	281	281.4	212	8	377	377.4	252	251.9	225.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	17128	45	26	26.3	12630	116	92	91.8	4430	62	140	140.0	65	65.2	66.7
YES	328	5	152	152.4	476	10	210	210.1	298	6	201	201.3	191	190.6	143.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.47814	1.78393	0.42434	0.47815	1.13	3.73	-3.94907	-5.24339
55-64	0.35897	0.85179	0.29552	0.33640	1.21	2.53	-3.17852	-3.97855
65-74	0.76196	0.37640	0.39343	0.43618	1.94	0.86	-3.26749	-3.54748
AVERAGE	0.49813	0.93726	0.20644	0.23271	2.41	4.03		
STANDARDIZED	0.10024	0.18291	0.04299	0.04157	2.33	4.40		
45-74, UNIVARIATE	0.59132	1.09783	0.20468	0.23249	2.89	4.72	-3.52793	-4.32618
45-74, BIVARIATE	0.46811	0.78295	0.20599	0.23587	2.27	3.32		
45-74, MULTIVARIATE	0.46655	0.48573	0.20994	0.24649	2.22	1.97		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.67 FOR MEN, 4.85 FOR WOMEN.

TABLE 1-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	130	96		9416	192	204		3100	61	197		147		
NO	12736	116	91	91.1	8672	171	197	197.2	2774	48	173	173.0	139	138.5	140.1
YES	778	14	180	179.9	744	21	282	282.3	326	13	399	398.8	260	259.7	239.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	50	29		13106	126	96		4728	68	144		69		
NO	16886	45	27	26.6	12300	112	91	91.1	4280	62	145	144.9	65	65.4	67.1
YES	570	5	88	87.7	806	14	174	173.7	448	6	134	133.9	137	137.1	106.2
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.69920	1.20373	0.28788	0.47530	2.43	2.53	-3.98707	-5.22909
55-64	0.37654	0.66281	0.23782	0.28826	1.58	2.30	-3.19281	-3.98733
65-74	0.88279	-0.08071	0.32430	0.43343	2.72	-0.19	-3.32848	-3.51203
AVERAGE	0.59834	0.59104	0.15960	0.21425	3.75	2.76		
STANDARDIZED	0.15585	0.15029	0.04202	0.04935	3.71	3.05		
45-74, UNIVARIATE	0.65382	0.75392	0.15826	0.21390	4.13	3.52	-3.55799	-4.32289
45-74, BIVARIATE	0.56149	0.46871	0.15927	0.21675	3.53	2.16		
45-74, MULTIVARIATE	0.49117	0.27550	0.16513	0.22476	2.97	1.23		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.76 FOR MEN, 4.13 FOR WOMEN.

TABLE 2-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
074-109	826	2	24	41.9	542	2	37	67.3	144	1	69	75.3	33	51.7	56.9
110-119	2272	10	44	48.9	1144	8	70	79.4	284	0	0	87.4	49	61.7	66.4
120-129	2950	16	54	57.0	1750	14	80	93.5	420	5	119	101.4	68	73.7	77.5
130-139	2954	16	54	66.4	1776	22	124	110.1	562	4	71	117.5	79	87.9	90.3
140-149	1944	22	113	77.3	1428	19	133	129.5	530	14	264	136.1	141	104.8	105.2
150-159	1166	9	77	90.0	1004	18	179	152.3	422	5	118	157.7	123	124.9	122.6
160-169	640	8	125	104.8	642	10	156	178.9	280	4	143	182.4	141	148.7	142.6
170-179	334	5	150	121.9	464	10	216	210.0	152	3	197	210.9	189	177.0	165.9
180-189	224		89	141.7	268	6	224	246.2	112	3	268	243.7	182	210.3	192.7
190-300	204	2	98	164.7	398	12	302	288.3	194	6	309	281.2	251	249.6	223.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
074-109	1578	3	19	10.7	518	0	0	16.2	100	0	0	24.2	14	12.6	16.1
110-119	3042	1	3	11.3	1242	4	32	19.4	266	1	38	29.7	13	15.4	18.8
120-129	3462	3	9	11.9	1810	3	17	23.2	382	3	79	36.5	16	18.9	21.9
130-139	3442	5	15	12.6	2262	5	22	27.8	674	1	15	44.9	17	23.1	25.5
140-149	2134	4	19	13.3	1932	4	21	33.2	774	4	52	55.1	25	28.3	29.8
150-159	1516	3	20	14.0	1728	5	29	39.7	716	4	56	67.7	30	34.6	34.7
160-169	874	2	23	14.7	1256	8	64	47.4	574	3	52	83.0	48	42.3	40.5
170-179	562	1	18	15.5	870	6	69	56.6	470	3	64	101.7	53	51.6	47.2
180-189	410	0	0	16.4	630	7	111	67.6	302	8	265	124.6	112	63.1	55.1
190-300	436	0	0	17.2	858	8	93	80.7	470	9	191	152.5	96	77.0	64.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01547	0.00527	0.00455	0.00839	3.40	0.63	-6.39696	-6.69399
55-64	0.01667	0.01796	0.00322	0.00425	5.18	4.23	-6.04378	-7.61251
65-74	0.01511	0.02075	0.00501	0.00555	3.02	3.74	-5.76665	-7.50465
AVERAGE	0.01602	0.01708	0.00233	0.00313	6.88	5.45		
STANDARDIZED	0.36378	0.43462	0.05318	0.08066	6.84	5.39		
45-74, UNIVARIATE	0.01795	0.02025	0.00228	0.00276	7.88	7.32	-6.44672	-8.10585
45-74, BIVARIATE	0.01564	0.01549	0.00234	0.00312	6.69	4.96		
45-74, MULTIVARIATE	0.01201	0.01433	0.00260	0.00344	4.61	4.17		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.09 FOR MEN, 2.46 FOR WOMEN.

TABLE 2-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
020-069	832	5	60	40.6	734	6	82	87.3	354	3	85	95.7	73	64.1	63.4
070-074	1688	6	36	46.5	1304	17	130	96.6	520	6	115	108.0	83	72.0	71.3
075-079	1368	9	66	53.1	976	6	61	107.0	322	2	62	121.9	64	80.8	80.3
080-084	3320	15	45	60.7	2146	22	103	118.4	702	9	128	137.5	75	90.6	90.3
085-089	1814	13	72	69.3	1014	9	89	131.0	332	2	60	155.0	76	101.6	101.6
090-094	1896	15	79	79.2	1334	29	217	144.9	402	10	249	174.7	149	114.0	114.2
095-099	902	14	155	90.5	598	4	67	160.2	138	3	217	196.8	128	127.7	128.4
100-104	942	5	53	103.3	658	14	213	177.1	160	7	438	221.5	148	143.2	144.2
105-109	282	4	142	117.8	172	2	116	195.7	34	1	294	249.2	143	160.4	161.9
110-160	470	6	128	134.4	480	12	250	216.2	136	2	147	280.2	184	179.6	181.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
020-069	1600	2	13	9.3	880	0	0	21.8	402	1	25	36.8	10	16.9	17.9
070-074	2810	4	14	10.2	1678	4	24	25.0	588	3	51	43.9	22	19.7	20.6
075-079	1978	1	5	11.1	1220	6	49	28.6	424	3	71	52.4	28	22.9	23.6
080-084	4108	3	7	12.1	2890	6	21	32.8	1100	3	27	62.5	15	26.7	27.2
085-089	2074	3	14	13.3	1584	5	32	37.6	490	2	41	74.5	24	31.0	31.2
090-094	2216	4	18	14.5	2042	12	59	43.0	758	12	158	88.8	56	36.1	35.9
095-099	848	0	0	15.8	834	7	84	49.2	320	3	94	105.8	50	42.0	41.2
100-104	852	1	12	17.3	972	2	21	56.3	346	2	58	125.9	23	48.8	47.3
105-109	272	3	110	18.9	290	2	69	64.5	68	2	294	149.8	111	56.8	54.3
110-160	698	1	14	20.6	716	6	84	73.7	232	5	216	178.0	73	66.0	62.3
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02700	0.01768	0.00815	0.01523	3.31	1.16	-6.62696	-7.47686
55-64	0.02075	0.02728	0.00660	0.00970	3.15	2.81	-5.43109	-7.27044
65-74	0.02473	0.03568	0.01017	0.01134	2.43	3.15	-5.60589	-7.31345
AVERAGE	0.02353	0.02834	0.00458	0.00663	5.14	4.27		
STANDARDIZED	0.29681	0.36418	0.05760	0.08542	5.15	4.26		
45-74, UNIVARIATE	0.02341	0.03046	0.00466	0.00640	5.03	4.76	-5.92394	-7.74174
45-74, BIVARIATE	0.02406	0.02796	0.00455	0.00663	5.29	4.22		
45-74, MULTIVARIATE	0.02025	0.02492	0.00477	0.00709	4.24	3.51		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.37 FOR MEN, 0.92 FOR WOMEN.

TABLE 2-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
096-189	1564	6	38	40.6	1152	8	69	99.7	406	2	49	134.5	51	71.9	70.7
190-204	1346	9	67	46.3	992	9	91	106.5	382	9	236	137.8	99	78.4	77.4
205-219	1962	5	25	52.9	1212	17	140	113.7	404	6	149	141.2	78	85.5	84.8
220-234	1996	15	75	60.3	1464	21	143	121.3	478	10	209	144.6	117	93.2	92.8
235-249	1670	10	60	68.7	1294	19	147	129.5	370	5	135	148.2	102	101.6	101.6
250-264	1484	8	54	78.3	1154	10	87	138.2	350	2	57	151.8	67	110.8	111.2
265-279	1060	11	104	89.3	764	12	157	147.5	268	3	112	155.5	124	120.7	121.6
280-294	720	7	97	101.7	480	6	125	157.3	230	4	174	159.2	119	131.5	133.1
295-309	418	6	144	115.8	312	9	288	167.8	90	3	333	163.1	220	143.2	145.5
310-1124	602	12	199	131.8	338	5	148	179.0	102	1	98	167.1	173	156.0	159.1
UNKNOWN	692	3			254	5			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
096-189	1708	0	0	6.8	554	4	72	16.1	154	1	65	31.6	21	13.7	15.5
190-204	1656	1	6	7.6	702	0	0	18.7	206	0	0	36.5	4	15.9	17.6
205-219	2026	2	10	8.5	1030	2	19	21.7	352	1	28	42.1	15	18.5	20.0
220-234	2418	1	4	9.5	1582	3	19	25.3	526	4	76	48.6	18	21.4	22.8
235-249	2174	2	9	10.6	1558	2	13	29.4	604	4	66	56.1	18	24.8	25.9
250-264	1826	2	11	11.8	1702	5	29	34.3	632	1	16	64.7	19	28.8	29.5
265-279	1522	2	13	13.2	1608	10	62	39.9	664	6	90	74.6	47	33.4	33.5
280-294	1130	1	9	14.7	1298	5	39	46.4	476	5	105	86.0	38	38.7	38.1
295-309	734	4	54	16.4	940	7	74	53.9	350	4	114	99.1	74	44.8	43.3
310-1124	1292	4	31	18.3	1698	12	71	62.7	708	9	127	114.1	68	51.9	49.2
UNKNOWN	970	3			434	0			56	1					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.00886	0.00738	0.00191	0.00207	4.63	3.56	-6.42087	-7.94719
55-64	0.00445	0.01016	0.00221	0.00265	2.02	3.84	-4.70722	-7.59202
65-74	0.00166	0.00963	0.00371	0.00353	0.45	2.73	-3.89036	-6.81391
AVERAGE	0.00627	0.00865	0.00135	0.00148	4.65	5.84		
STANDARDIZED	0.25686	0.39671	0.05580	0.06790	4.60	5.84		
45-74, UNIVARIATE	0.00586	0.00991	0.00137	0.00172	4.29	5.78	-5.29712	-7.70432
45-74, BIVARIATE	0.00617	0.00863	0.00139	0.00160	4.45	5.38		
45-74, MULTIVARIATE	0.00585	0.00818	0.00140	0.00156	4.20	5.24		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.05 FOR MEN, 0.78 FOR WOMEN.

TABLE 2-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
062-179	1806	8	44	43.2	1180	8	68	112.4	148	1	68	128.5	54	75.6	77.4
180-199	852	4	47	48.1	594	8	135	115.8	74	0	0	132.0	79	80.7	82.2
200-219	1076	8	74	53.5	744	7	94	119.3	224	2	89	135.7	83	86.0	87.2
220-239	1342	5	37	59.5	992	21	212	122.9	280	7	250	139.4	126	91.8	92.6
240-259	1820	15	82	66.2	1386	21	152	126.5	630	10	159	143.2	120	97.9	98.2
260-279	1826	10	55	73.6	1452	16	110	130.3	592	8	135	147.1	88	104.4	104.2
280-299	1564	13	83	81.9	1158	14	121	134.2	460	8	174	151.1	110	111.3	110.6
300-319	1056	5	47	91.1	818	8	98	138.2	374	5	134	155.2	80	118.7	117.3
320-339	774	8	103	101.2	408	5	123	142.3	210	3	143	159.5	115	126.6	124.4
340-968	644	13	202	112.5	406	8	197	146.6	86	1	116	163.8	194	135.0	132.0
UNKNOWN	754	3			278	5			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
062-179	2134	0	0	6.3	1078	2	19	18.1	90	1	111	25.5	9	12.8	15.3
180-199	896	0	0	7.1	614	2	33	20.9	68	0	0	30.2	13	15.0	17.4
200-219	1608	2	12	8.0	992	3	30	24.1	202	1	50	35.8	21	17.6	19.9
220-239	1662	1	6	9.0	1020	4	39	27.7	250	0	0	42.4	17	20.8	22.7
240-259	2192	3	14	10.1	1378	4	29	32.0	500	1	20	50.2	20	24.4	25.9
260-279	2300	5	22	11.4	1770	9	51	36.8	734	5	68	59.4	40	28.7	29.6
280-299	1914	1	5	12.8	1760	1	6	42.4	804	6	75	70.3	18	33.7	33.7
300-319	1648	2	12	14.4	1676	9	54	48.9	886	7	79	83.1	43	39.6	38.5
320-339	1006	3	30	16.2	1100	7	64	56.3	548	5	91	98.3	57	46.6	43.9
340-968	1022	1	10	18.2	1242	9	72	64.8	576	9	156	116.1	67	54.7	50.0
UNKNOWN	1074	4			476	0			70	1					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.00540	0.00587	0.00159	0.00298	3.39	1.97	-5.66012	-7.66764
55-64	0.00151	0.00714	0.00159	0.00251	0.95	2.85	-4.02907	-6.83053
65-74	0.00139	0.00852	0.00335	0.00354	0.41	2.41	-3.87111	-6.72267
AVERAGE	0.00325	0.00705	0.00107	0.00169	3.04	4.18		
STANDARDIZED	0.18175	0.40156	0.06229	0.09546	2.92	4.21		
45-74, UNIVARIATE	0.00329	0.00814	0.00105	0.00152	3.13	5.36	-4.73516	-7.35271
45-74, BIVARIATE	0.00303	0.00664	0.00109	0.00167	2.78	3.98		
45-74, MULTIVARIATE	0.00021	0.00399	0.00130	0.00215	0.16	0.46		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.32 FOR MEN, 0.33 FOR WOMEN.

TABLE 2-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
096-189	1564	6	38	40.6	1152	8	69	99.7	406	2	49	134.5	51	71.9	70.7
190-204	1346	9	67	46.3	992	9	91	106.5	382	9	236	137.8	99	78.4	77.4
205-219	1962	5	25	52.9	1212	17	140	113.7	404	6	149	141.2	78	85.5	84.8
220-234	1996	15	75	60.3	1464	21	143	121.3	478	10	209	144.6	117	93.2	92.8
235-249	1670	10	60	68.7	1294	19	147	129.5	370	5	135	148.2	102	101.6	101.6
250-264	1484	8	54	78.3	1154	10	87	138.2	350	2	57	151.8	67	110.8	111.2
265-279	1060	11	104	89.3	764	12	157	147.5	268	3	112	155.5	124	120.7	121.6
280-294	720	7	97	101.7	480	6	125	157.3	230	4	174	159.2	119	131.5	133.1
295-309	418	6	144	115.8	312	9	288	167.8	90	3	333	163.1	220	143.2	145.5
310-1124	602	12	199	131.8	338	5	148	179.0	102	1	98	167.1	173	156.0	159.1
UNKNOWN	692	3			254	5			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
096-189	1708	0	0	6.8	554	4	72	16.1	154	1	65	31.6	21	13.7	15.5
190-204	1656	1	6	7.6	702	0	0	18.7	206	0	0	36.5	4	15.9	17.6
205-219	2026	2	10	8.5	1030	2	19	21.7	352	1	28	42.1	15	18.5	20.0
220-234	2418	1	4	9.5	1582	3	19	25.3	526	4	76	48.6	18	21.4	22.8
235-249	2174	2	9	10.6	1558	2	13	29.4	604	4	66	56.1	18	24.8	25.9
250-264	1826	2	11	11.8	1702	5	29	34.3	632	1	16	64.7	19	28.8	29.5
265-279	1522	2	13	13.2	1608	10	62	39.9	664	6	90	74.6	47	33.4	33.5
280-294	1130	1	9	14.7	1298	5	39	46.4	476	5	105	86.0	38	38.7	38.1
295-309	734	4	54	16.4	940	7	74	53.9	350	4	114	99.1	74	44.8	43.3
310-1124	1292	4	31	18.3	1698	12	71	62.7	708	9	127	114.1	68	51.9	49.2
UNKNOWN	970	3			434	0			56	1					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT): REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00886	0.00738	0.00191	0.00207	4.63	3.56	-6.42087	-7.94719
55-64	0.00445	0.01016	0.00221	0.00265	2.02	3.84	-4.70722	-7.59202
65-74	0.00166	0.00963	0.00371	0.00353	0.45	2.73	-3.89036	-6.81391
AVERAGE	0.00627	0.00865	0.00135	0.00148	4.65	5.84		
STANDARDIZED	0.25686	0.39671	0.05580	0.06790	4.60	5.84		
45-74, UNIVARIATE	0.00586	0.00991	0.00137	0.00172	4.29	5.78	-5.29712	-7.70432
45-74, BIVARIATE	0.00617	0.00863	0.00139	0.00160	4.45	5.38		
45-74, MULTIVARIATE	0.00585	0.00818	0.00140	0.00156	4.20	5.24		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.05 FOR MEN, 0.78 FOR WOMEN.

TABLE 2-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
062-179	1806	8	44	43.2	1180	8	68	112.4	148	1	68	128.5	54	75.6	77.4
180-199	852	4	47	48.1	594	8	135	115.8	74	0	0	132.0	79	80.7	82.2
200-219	1076	8	74	53.5	744	7	94	119.3	224	2	89	135.7	83	86.0	87.2
220-239	1342	5	37	59.5	992	21	212	122.9	280	7	250	139.4	126	91.8	92.6
240-259	1820	15	82	66.2	1386	21	152	126.5	630	10	159	143.2	120	97.9	98.2
260-279	1826	10	55	73.6	1452	16	110	130.3	592	8	135	147.1	88	104.4	104.2
280-299	1564	13	83	81.9	1158	14	121	134.2	460	8	174	151.1	110	111.3	110.6
300-319	1056	5	47	91.1	818	8	98	138.2	374	5	134	155.2	80	118.7	117.3
320-339	774	8	103	101.2	408	5	123	142.3	210	3	143	159.5	115	126.6	124.4
340-968	644	13	202	112.5	406	8	197	146.6	86	1	116	163.8	194	135.0	132.0
UNKNOWN	754	3			278	5			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
062-179	2134	0	0	6.3	1078	2	19	18.1	90	1	111	25.5	9	12.8	15.3
180-199	896	0	0	7.1	614	2	33	20.9	68	0	0	30.2	13	15.0	17.4
200-219	1608	2	12	8.0	992	3	30	24.1	202	1	50	35.8	21	17.6	19.9
220-239	1662	1	6	9.0	1020	4	39	27.7	250	0	0	42.4	17	20.8	22.7
240-259	2192	3	14	10.1	1378	4	29	32.0	500	1	20	50.2	20	24.4	25.9
260-279	2300	5	22	11.4	1770	9	51	36.8	734	5	68	59.4	40	28.7	29.6
280-299	1914	1	5	12.8	1760	1	6	42.4	804	6	75	70.3	18	33.7	33.7
300-319	1648	2	12	14.4	1676	9	54	48.9	886	7	79	83.1	43	39.6	38.5
320-339	1006	3	30	16.2	1100	7	64	56.3	548	5	91	98.3	57	46.6	43.9
340-968	1022	1	10	18.2	1242	9	72	64.8	576	9	156	116.1	67	54.7	50.0
UNKNOWN	1074	4			476	0			70	1					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00540	0.00587	0.00159	0.00298	3.39	1.97	-5.66012	-7.66764
55-64	0.00151	0.00714	0.00159	0.00251	0.95	2.85	-4.02907	-6.83053
65-74	0.00139	0.00852	0.00335	0.00354	0.41	2.41	-3.87111	-6.72267
AVERAGE	0.00325	0.00705	0.00107	0.00169	3.04	4.18		
STANDARDIZED	0.18175	0.40156	0.06229	0.09546	2.92	4.21		
45-74, UNIVARIATE	0.00329	0.00814	0.00105	0.00152	3.13	5.36	-4.73516	-7.35271
45-74, BIVARIATE	0.00303	0.00664	0.00109	0.00167	2.78	3.98		
45-74, MULTIVARIATE	0.00021	0.00399	0.00130	0.00215	0.16	0.46		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.32 FOR MEN, 0.33 FOR WOMEN.

TABLE 2-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
029-059	376	4	106	55.7	276	7	254	114.5	68	0	0	114.1	153	82.2	84.1
060-069	2412	14	58	59.6	1476	15	102	118.4	518	7	135	122.4	82	87.2	88.7
070-079	4350	28	64	63.7	2858	28	98	122.3	908	15	165	131.3	87	92.6	93.5
080-089	3162	15	47	68.2	2296	29	126	126.4	694	6	86	140.8	81	98.3	98.6
090-099	1474	12	81	72.9	1126	20	178	130.7	452	7	155	151.0	128	104.3	103.9
100-109	590	4	68	78.0	488	8	164	135.1	154	2	130	161.9	114	110.7	109.5
110-119	276	3	109	83.4	252	4	159	139.6	64	1	156	173.5	135	117.5	115.5
120-129	116	2	172	89.2	138	2	145	144.2	58	2	345	186.0	192	124.7	121.7
130-139	72	1	139	95.4	70	1	143	149.1	52	0	0	199.3	103	132.3	128.3
140-524	254	6	236	102.0	252	3	119	154.0	106	5	472	213.5	229	140.4	135.2
UNKNOWN	432	3			184	4			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
029-059	348	1	29	7.1	274	0	0	32.7	72	0	0	51.1	14	21.8	23.2
060-069	2976	1	3	8.3	1698	12	71	34.5	556	4	72	56.7	33	24.2	25.3
070-079	5838	8	14	9.6	4058	12	30	36.5	1462	11	75	63.0	27	26.8	27.6
080-089	4418	5	11	11.1	3580	13	36	38.6	1242	8	64	70.0	28	29.6	30.0
090-099	1814	1	6	12.8	1606	2	12	40.9	626	6	96	77.7	22	32.8	32.7
100-109	696	0	0	14.9	718	4	56	43.2	326	2	61	86.2	34	36.3	35.6
110-119	334	0	0	17.2	298	4	134	45.7	124	1	81	95.6	66	40.2	38.8
120-129	116	0	0	19.9	222	0	0	48.4	110	0	0	106.1	0	44.5	42.2
130-139	50	0	0	23.1	66	0	0	51.1	40	0	0	117.7	0	49.3	46.0
140-524	188	3	160	26.7	286	3	105	54.1	124	3	242	130.5	151	54.6	50.1
UNKNOWN	678	3			300	0			46	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00683	0.01473	0.00263	0.00421	2.60	3.50	-4.86157	-7.36220
55-64	0.00338	0.00565	0.00286	0.00362	1.19	1.56	-3.93954	-5.33543
65-74	0.00719	0.01060	0.00296	0.00343	2.43	3.09	-4.15209	-5.15600
AVERAGE	0.00583	0.00994	0.00162	0.00215	3.60	4.63		
STANDARDIZED	0.15064	0.23549	0.04210	0.04950	3.58	4.76		
45-74, UNIVARIATE	0.00608	0.01026	0.00160	0.00201	3.80	5.10	-4.42634	-5.99393
45-74, BIVARIATE	0.00542	0.00860	0.00164	0.00214	3.31	4.02		
45-74, MULTIVARIATE	0.00483	0.00650	0.00170	0.00226	2.84	2.88		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.09 FOR MEN, 2.73 FOR WOMEN.

TABLE 2-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
065-099	1188	4	34	49.3	848	15	177	106.4	320	3	94	124.1	93	79.9	78.3
100-104	844	2	24	52.6	538	7	130	110.7	194	1	52	128.5	63	83.6	82.2
105-109	1248	6	48	56.1	776	4	52	115.3	292	7	240	133.0	73	87.4	86.4
110-114	1458	9	62	59.9	1144	14	122	120.0	358	3	84	137.7	88	91.5	90.7
115-119	1704	12	70	63.9	1302	14	108	124.9	410	10	244	142.6	105	95.7	95.3
120-124	1862	18	97	68.1	1360	15	110	130.0	422	6	142	147.6	107	100.0	100.0
125-129	1528	7	46	72.6	1050	14	133	135.3	320	3	94	152.8	83	104.6	105.0
130-134	1302	11	84	77.5	928	10	108	140.9	326	4	123	158.1	98	109.4	110.3
135-139	762	10	131	82.6	538	8	149	146.6	178	4	225	163.7	149	114.4	115.8
140-272	1616	13	80	88.1	930	20	215	152.6	280	4	143	169.5	131	119.6	121.6
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
065-099	2062	1	5	7.9	1050	2	19	33.3	472	5	106	75.6	22	24.4	26.0
100-104	1556	2	13	8.6	842	1	12	34.1	306	1	33	75.7	15	25.4	26.8
105-109	1970	0	0	9.3	1256	4	32	34.9	348	1	29	75.8	14	26.4	27.6
110-114	2064	4	19	10.1	1302	7	54	35.8	430	4	93	75.9	40	27.5	28.5
115-119	1964	2	10	11.0	1454	4	28	36.6	522	3	57	76.0	23	28.7	29.3
120-124	1708	1	6	11.9	1484	9	61	37.5	490	6	122	76.1	43	29.9	30.2
125-129	1404	1	7	12.9	1198	3	25	38.4	436	3	69	76.2	23	31.1	31.1
130-134	1058	2	19	14.1	986	4	41	39.3	322	4	124	76.3	42	32.4	32.0
135-139	874	4	46	15.3	764	5	65	40.2	328	1	30	76.4	51	33.8	33.0
140-272	2796	5	18	16.6	2770	11	40	41.1	1074	8	74	76.5	36	35.2	34.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.01308	0.01659	0.00629	0.00721	2.08	2.30	-5.88440	-8.06996
55-64	0.00823	0.00471	0.00592	0.00594	1.39	0.79	-4.63140	-5.46320
65-74	0.00714	0.00026	0.00935	0.00730	0.76	0.04	-4.36707	-4.20155
AVERAGE	0.00992	0.00689	0.00391	0.00388	2.53	1.78		
STANDARDIZED	0.15522	0.15676	0.06150	0.08668	2.52	1.81		
45-74, UNIVARIATE	0.00914	0.00822	0.00389	0.00383	2.35	2.15	-5.01143	-6.12090
45-74, BIVARIATE	0.01001	0.00595	0.00391	0.00397	2.56	1.50		
45-74, MULTIVARIATE	0.00774	0.00161	0.00409	0.00434	1.89	0.37		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.42 FOR MEN, 2.77 FOR WOMEN.

TABLE 2-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
12-31	154	2	130	97.6	274	4	146	162.1	208	4	192	160.4	157	152.2	120.5
32-35	148	1	68	91.8	296	1	34	154.6	218	2	92	155.5	60	140.1	116.1
36-39	452	0	0	86.4	542	15	277	147.5	326	2	61	150.7	129	128.9	111.8
40-43	770	9	117	81.3	1018	11	108	140.7	506	8	158	146.1	122	118.5	107.8
44-47	1636	9	55	76.4	1558	26	167	134.2	544	13	239	141.7	128	109.0	103.8
48-51	1712	18	105	71.9	1494	21	141	128.0	492	6	122	137.3	122	100.3	100.0
52-55	2532	23	91	67.6	1646	13	79	122.1	396	6	152	133.1	92	92.2	96.3
56-59	2390	11	46	63.6	1254	15	120	116.5	236	2	85	129.0	72	84.7	92.8
60-63	1788	9	50	59.8	776	9	116	111.1	104	0	0	125.1	67	77.9	89.4
64-85	1924	10	52	56.2	530	6	113	105.9	56	1	179	121.2	68	71.6	86.1
UNKNOWN	8	0			28	0			14	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
04-19	82	0	0	32.7	256	1	39	72.3	260	4	154	118.5	84	93.6	53.8
20-23	194	0	0	27.5	378	1	26	62.3	282	3	106	103.8	47	73.0	47.8
24-27	390	2	51	23.1	834	3	36	53.6	562	3	53	90.9	45	57.0	42.5
28-31	972	2	21	19.4	1726	11	64	46.2	944	7	74	79.5	55	44.4	37.8
32-35	2156	3	14	16.3	2824	13	46	39.7	1144	10	87	69.6	42	34.6	33.6
36-39	3016	5	17	13.7	2760	11	40	34.2	800	5	63	60.9	32	26.9	29.8
40-43	4080	5	12	11.5	2318	7	30	29.4	458	2	44	53.2	20	21.0	26.5
44-47	3262	2	6	9.7	1258	3	24	25.3	200	2	100	46.5	15	16.3	23.5
48-51	2048	3	15	8.1	500	0	0	21.8	60	0	0	40.7	12	12.7	20.9
52-77	1238	0	0	6.8	238	0	0	18.7	18	0	0	35.6	0	9.9	18.5
UNKNOWN	18	0			14	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.01555	-0.04372	0.01145	0.02754	-1.36	-1.59	-3.45017	-4.23673
55-64	-0.01214	-0.03783	0.01000	0.01832	-1.21	-2.07	-3.03188	-3.54054
65-74	-0.00799	-0.03392	0.01682	0.02199	-0.48	-1.54	-3.16734	-3.10754
AVERAGE	-0.01268	-0.03778	0.00687	0.01253	-1.84	-3.01		
STANDARDIZED	-0.11501	-0.28064	0.06231	0.09311	-1.85	-3.01		
45-74, UNIVARIATE	-0.02141	-0.06296	0.00647	0.01120	-3.31	-5.62	-2.81877	-2.82646
45-74, BIVARIATE	-0.00956	-0.02982	0.00697	0.01286	-1.37	-2.32		
45-74, MULTIVARIATE	0.00014	-0.02198	0.00726	0.01375	0.02	-1.60		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.14 FOR MEN, 0.08 FOR WOMEN.

TABLE 2-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
37-63	2118	12	57	54.5	1800	17	94	100.6	516	6	116	142.2	79	82.2	81.8
64-67	1306	5	38	57.8	980	9	92	107.8	364	9	247	143.1	87	86.6	86.3
68-71	1824	11	60	61.4	1288	16	124	115.6	472	5	106	144.0	89	91.3	91.0
72-75	2572	18	70	65.2	1756	22	125	123.9	606	6	99	144.9	93	96.2	96.1
76-79	736	5	68	69.2	446	9	202	132.7	118	1	85	145.8	115	101.3	101.4
80-83	1628	11	68	73.5	1078	10	93	142.2	344	8	233	146.8	95	106.8	107.0
84-87	972	8	82	78.0	620	10	161	152.4	188	4	213	147.7	124	112.5	112.8
88-91	960	11	115	82.8	534	5	94	163.2	168	1	60	148.6	102	118.5	119.0
92-95	498	1	20	87.9	342	9	263	174.8	114	2	175	149.6	126	124.9	125.5
96-170	900	10	111	93.3	572	14	245	187.1	210	3	143	150.5	161	131.5	132.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
37-63	1744	1	6	14.6	1564	4	26	27.7	480	4	83	61.8	24	24.4	25.6
64-67	1548	2	13	14.0	1008	2	20	29.8	328	0	0	64.7	14	25.7	26.7
68-71	2294	6	26	13.5	1624	3	18	32.1	570	6	105	67.7	33	27.1	27.9
72-75	3474	5	14	13.0	2530	12	47	34.5	758	5	66	70.8	33	28.6	29.1
76-79	980	2	20	12.5	798	2	25	37.1	218	2	92	74.1	30	30.1	30.3
80-83	2300	1	4	12.0	1742	4	23	39.9	748	6	80	77.6	23	31.8	31.6
84-87	1568	2	13	11.6	1044	5	48	43.0	438	3	68	81.2	33	33.5	33.0
88-91	1252	0	0	11.1	976	9	92	46.2	398	3	75	84.9	46	35.3	34.4
92-95	778	2	26	10.7	636	4	63	49.7	256	1	39	88.9	42	37.2	35.8
96-170	1518	1	7	10.3	1184	5	42	53.5	534	6	112	93.0	37	39.2	37.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.01515	-0.00963	0.00800	0.01800	1.89	-0.54	-5.44767	-5.23736
55-64	0.01774	0.01844	0.00647	0.00979	2.74	1.88	-4.98550	-6.33454
65-74	0.00162	0.01152	0.01135	0.01239	0.14	0.93	-3.63162	-5.09462
AVERAGE	0.01424	0.01186	0.00460	0.00707	3.10	1.68		
STANDARDIZED	0.18357	0.15016	0.05910	0.09041	3.11	1.66		
45-74, UNIVARIATE	0.01335	0.01329	0.00465	0.00717	2.87	1.85	-4.91934	-6.14200
45-74, BIVARIATE	0.01374	0.01057	0.00457	0.00717	3.00	1.47		
45-74, MULTIVARIATE	0.00418	0.00423	0.00487	0.00762	0.86	0.55		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.54 FOR MEN, 1.88 FOR WOMEN.

TABLE 2-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NONE	5114	17	33	39.1	4570	41	90	98.7	1868	27	145	141.6	74	78.7	70.6
UNDER 20	1912	10	52	54.9	1482	23	155	123.2	544	7	129	147.1	102	93.8	90.7
20	3124	34	109	76.9	1832	31	169	153.6	368	6	163	152.8	133	111.7	116.3
OVER 20	3296	29	88	107.6	1490	25	168	191.2	310	5	161	158.6	116	132.9	148.8
UNKNOWN	68	2			42	1			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NONE	9812	10	10	9.7	9212	31	34	36.0	3778	29	77	77.1	31	30.8	27.4
UNDER 20	4096	5	12	13.3	2264	13	57	40.7	626	4	64	67.0	31	30.1	32.5
20	2454	4	16	18.2	1080	4	37	46.0	220	2	91	58.2	27	29.4	38.6
OVER 20	1026	3	29	24.8	502	2	40	52.0	82	0	0	50.6	31	28.7	45.8
UNKNOWN	68	0			48	0			22	1					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.34225	0.31294	0.09061	0.20368	3.78	1.54	-4.84330	-6.23981
55-64	0.22668	0.12348	0.07697	0.16290	2.95	0.76	-3.90500	-4.92548
65-74	0.03897	-0.14201	0.14499	0.30033	0.27	-0.47	-3.53519	-4.15717
AVERAGE	0.24190	0.14576	0.05438	0.11714	4.45	1.24		
STANDARDIZED	0.27119	0.10024	0.06249	0.09338	4.34	1.07		
45-74, UNIVARIATE	0.17839	-0.02360	0.05193	0.11469	3.44	-0.21	-4.13585	-5.08258
45-74, BIVARIATE	0.25504	0.17332	0.05341	0.11519	4.77	1.50		
45-74, MULTIVARIATE	0.29954	0.22703	0.05471	0.11776	5.48	1.93		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.22 FOR MEN, 1.61 FOR WOMEN.

TABLE 2-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	7100	33	46	46.5	4330	35	81	89.2	1214	6	49	72.6	59	63.7	66.2
BORDER	4116	31	75	75.4	3028	48	159	134.6	1212	23	190	143.3	122	106.3	106.3
DEFINITE	2298	28	122	121.8	2058	38	185	202.2	674	16	237	279.1	163	176.1	169.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	9876	9	9	10.1	4886	8	16	21.2	1136	4	35	28.6	13	15.0	19.1
BORDER	4980	9	18	14.0	4696	22	47	36.7	1908	10	52	60.3	35	30.6	31.7
DEFINITE	2600	4	15	19.3	3524	20	57	63.5	1684	22	131	126.2	59	62.5	52.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.48951	0.32246	0.12945	0.26866	3.78	1.20	-4.66917	-6.19847
55-64	0.42097	0.55202	0.11335	0.18373	3.71	3.00	-4.00843	-5.45770
65-74	0.69478	0.75208	0.20184	0.25577	3.44	2.94	-4.21764	-5.15807
AVERAGE	0.48768	0.54994	0.07856	0.13045	6.21	4.22		
STANDARDIZED	0.37673	0.42236	0.06056	0.10062	6.22	4.20		
45-74, UNIVARIATE	0.51971	0.71965	0.07787	0.12284	6.67	5.86	-4.34945	-5.80936
45-74, BIVARIATE	0.48337	0.50748	0.07858	0.12866	6.15	3.94		
45-74, MULTIVARIATE	0.39363	0.42437	0.08367	0.13449	4.70	3.16		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.40 FOR MEN, 1.34 FOR WOMEN.

TABLE 2-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	11429	72	63	62.9	7252	81	112	110.7	2068	28	135	130.5	87	86.6	89.7
POSSIBLE	1002	8	80	83.2	992	14	141	155.1	448	5	112	156.8	111	122.1	117.3
DEFINITE	1076	12	112	110.0	1170	26	222	216.3	584	12	205	188.2	177	171.7	153.2
UNKNOWN	8	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	14118	15	11	10.8	8342	20	24	27.0	2264	17	75	68.9	21	21.9	26.1
POSSIBLE	1580	3	19	16.2	2068	14	68	43.2	884	4	45	77.0	46	36.8	34.7
DEFINITE	1746	4	23	24.2	2688	16	60	68.9	1580	15	95	86.1	58	61.8	46.2
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.28444	0.40534	0.15135	0.26831	1.88	1.51	-4.36369	-6.13704
55-64	0.34569	0.47277	0.11347	0.15744	3.05	3.00	-3.78760	-5.21550
65-74	0.18888	0.11298	0.17901	0.18689	1.06	0.60	-3.61935	-4.27082
AVERAGE	0.29608	0.33716	0.08097	0.10985	3.66	3.07		
STANDARDIZED	0.19810	0.27324	0.05411	0.08710	3.66	3.14		
45-74, UNIVARIATE	0.35122	0.52249	0.07983	0.10669	4.40	4.90	-4.03890	-5.42613
45-74, BIVARIATE	0.27536	0.28848	0.08158	0.11243	3.38	2.57		
45-74, MULTIVARIATE	0.16791	0.15407	0.08994	0.12165	1.87	1.27		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.56 FOR MEN, 2.25 FOR WOMEN.

TABLE 2-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	13074	87	67	66.8	8820	101	115	114.2	2896	35	121	122.1	90	90.1	91.4
POSSIBLE	254	3	118	91.7	358	8	223	240.3	82	3	366	276.9	202	190.1	179.5
DEFINITE	186	2	108	125.6	238	12	504	491.6	122	7	574	603.7	385	392.0	345.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	17144	22	13	******	12444	47	38	37.5	4394	29	66	68.0	29	29.0	29.7
POSSIBLE	200	0	0	******	382	1	26	46.5	174	4	230	129.1	66	53.7	44.3
DEFINITE	112	0	0	******	280	2	71	57.6	160	3	188	242.3	91	99.1	66.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.32159	*******	0.30319	*******	1.06	****	-4.30202	********
55-64	0.77015	0.21714	0.15239	0.36175	5.05	0.60	-3.75639	-4.88645
65-74	0.85099	0.65340	0.20960	0.26393	4.06	2.48	-3.68750	-4.28406
AVERAGE	0.73052	0.50185	0.11418	0.21321	6.40	2.35		
STANDARDIZED	0.24730	0.17864	0.04045	0.07935	6.11	2.25		
45-74, UNIVARIATE	0.76683	0.62190	0.11125	0.20656	6.89	3.01	-3.99788	-5.14487
45-74, BIVARIATE	0.69584	0.40304	0.11235	0.21033	6.19	1.92		
45-74, MULTIVARIATE	0.53936	0.17351	0.12580	0.22685	4.29	0.76		

CHI SQUARE FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.22 (2 DF) FOR MEN, 0.95 (1 DF) FOR WOMEN.

TABLE 2-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	13370	87	65	65.1	9202	117	127	127.1	2946	44	149	149.4	97	97.2	98.0
YES	144	5	347	347.2	214	4	187	186.9	154	1	65	64.9	195	195.3	157.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	17358	22	13	12.7	12898	47	36	36.4	4660	35	75	75.1	30	29.8	30.0
YES	98	0	0	0.0	208	3	144	144.2	68	1	147	147.1	107	107.0	83.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.73336	********	0.47599	*******	3.64	*****	-4.32861	********
55-64	0.39766	1.39771	0.51815	0.60388	0.77	2.31	-3.64610	-4.91422
65-74	-0.85019	0.68663	1.01813	1.02923	-0.84	0.67	-3.48054	-4.18314
AVERAGE	0.91304	*******	0.33144	*******	2.75	****		
STANDARDIZED	0.13297	*******	0.04060	*******	3.28	****		
45-74, UNIVARIATE	0.71819	1.29400	0.32890	0.51492	2.18	2.51	-3.92093	-5.11719
45-74, BIVARIATE	0.48785	1.03438	0.33211	0.51811	1.47	2.00		
45-74, MULTIVARIATE	0.56608	1.03888	0.33606	0.52316	1.68	1.99		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 6.96 FOR MEN.

TABLE 2-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	12910	86	67	66.6	8812	111	126	126.0	2816	34	121	120.7	94	94.1	95.2
YES	604	6	99	99.3	604	10	166	165.6	284	11	387	387.3	181	181.0	162.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	16838	19	11	11.3	12282	45	37	36.6	4298	28	65	65.1	28	27.5	28.6
YES	618	3	49	48.5	824	5	61	60.7	430	8	186	186.0	85	85.5	66.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.40625	1.46658	0.42642	0.62398	0.95	2.35	-4.30485	-6.09155
55-64	0.28151	0.50935	0.33566	0.47418	0.84	1.07	-3.65568	-4.90873
65-74	1.22182	1.07416	0.35872	0.40745	3.41	2.64	-3.69912	-4.32744
AVERAGE	0.64244	0.95881	0.21249	0.27693	3.02	3.46		
STANDARDIZED	0.14573	0.23361	0.05199	0.06689	2.80	3.49		
45-74, UNIVARIATE	0.67138	1.14461	0.20698	0.27298	3.24	4.19	-3.95341	-5.19639
45-74, BIVARIATE	0.55327	0.84391	0.20849	0.27660	2.65	3.05		
45-74, MULTIVARIATE	0.21364	0.65105	0.21569	0.28761	0.99	2.26		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.07 FOR MEN, 1.64 FOR WOMEN.

TABLE 2-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	13260	87	66	65.6	9054	112	124	123.7	2956	42	142	142.1	95	95.4	96.2
YES	212	5	236	235.8	328	8	244	243.9	136	3	221	220.6	237	236.7	205.8
UNKNOWN	42	0			34	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	16852	22	13	13.1	12716	49	39	38.5	4574	32	70	70.0	30	30.2	30.1
YES	562	0	0	0.0	350	1	29	28.6	138	4	290	289.9	48	47.6	51.1
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.31456	********	0.47069	*******	2.79	*****	-4.32024	********
55-64	0.70385	-0.30114	0.37492	1.01307	1.88	-0.30	-3.67426	-4.85791
65-74	0.45617	1.46708	0.61092	0.54505	0.75	2.69	-3.53195	-4.25517
AVERAGE	0.85014	*******	0.26438	*******	3.22	****		
STANDARDIZED	0.14295	*******	0.04204	*******	3.40	****		
45-74, UNIVARIATE	0.93821	0.45996	0.26426	0.46010	3.55	1.00	-3.94017	-5.10436
45-74, BIVARIATE	0.78753	0.53561	0.26612	0.46180	2.96	1.16		
45-74, MULTIVARIATE	0.20032	0.04827	0.29281	0.51778	0.68	0.09		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.54 FOR MEN.

TABLE 2-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	13152	87	66	66.1	9080	112	123	123.3	2954	38	129	128.6	94	94.1	94.7
YES	324	5	154	154.3	302	8	265	264.9	138	7	507	507.2	262	261.8	240.7
UNKNOWN	38	0			34	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	17228	21	12	12.2	12844	46	36	35.8	4626	33	71	71.3	29	28.8	29.1
YES	188	1	53	53.2	226	4	177	177.0	86	3	349	348.8	160	160.0	139.0
UNKNOWN	40	0			36	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.86515	1.48158	0.46692	1.02883	1.85	1.44	-4.31196	-6.01418
55-64	0.79380	1.62660	0.37570	0.53016	2.11	3.07	-3.67720	-4.93165
65-74	1.45289	1.64516	0.43127	0.62376	3.37	2.64	-3.63412	-4.23542
AVERAGE	1.02085	1.61397	0.24219	0.37602	4.22	4.29		
STANDARDIZED	0.17415	0.20290	0.04269	0.04761	4.08	4.26		
45-74, UNIVARIATE	1.05793	1.74084	0.23888	0.37308	4.43	4.67	-3.95384	-5.15034
45-74, BIVARIATE	0.96837	1.58942	0.24011	0.37672	4.03	4.22		
45-74, MULTIVARIATE	0.90460	1.44177	0.25156	0.38907	3.60	3.71		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.48 FOR MEN, 0.02 FOR WOMEN.

TABLE 2-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	13116	87	66	66.3	8954	115	128	128.4	2888	38	132	131.6	96	96.2	97.0
YES	398	5	126	125.6	462	6	130	129.9	212	7	330	330.2	168	167.9	149.3
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	17128	19	11	11.1	12630	46	36	36.4	4430	32	72	72.2	28	28.4	29.3
YES	328	3	91	91.5	476	4	84	84.0	298	4	134	134.2	100	99.8	71.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.65076	2.12587	0.46562	0.62633	1.40	3.39	-4.30918	-6.10866
55-64	0.01141	0.84570	0.42431	0.52552	0.03	1.61	-3.63575	-4.91473
65-74	0.96171	0.63228	0.42425	0.53722	2.27	1.18	-3.61092	-4.22272
AVERAGE	0.53478	1.10764	0.25219	0.32216	2.12	3.44		
STANDARDIZED	0.10668	0.21739	0.05216	0.05770	2.05	3.77		
45-74, UNIVARIATE	0.57214	1.27241	0.24846	0.32114	2.30	3.96	-3.93174	-5.16608
45-74, BIVARIATE	0.44458	0.90651	0.24988	0.32550	1.78	2.79		
45-74, MULTIVARIATE	0.44258	0.61923	0.25453	0.34372	1.74	1.80		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.60 FOR MEN, 3.67 FOR WOMEN.

TABLE 2-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE OTHER THAN ANGINA PECTORIS
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	92	68		9416	121	129		3100	45	145		99		
NO	12736	80	63	62.8	8672	108	125	124.5	2774	35	126	126.2	92	92.2	93.4
YES	778	12	154	154.2	744	13	175	174.7	326	10	307	306.7	189	189.4	174.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	22	13		13106	50	38		4728	36	76		31		
NO	16886	19	11	11.3	12300	45	37	36.6	4280	32	75	74.8	29	28.7	29.6
YES	570	3	53	52.6	806	5	62	62.0	448	4	89	89.3	66	65.8	48.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.91703	1.55111	0.31408	0.62420	2.92	2.48	-4.36437	-6.09440
55-64	0.34898	0.53319	0.29867	0.47423	1.17	1.12	-3.66735	-4.91020
65-74	0.92614	0.18043	0.36857	0.53504	2.51	0.34	-3.65399	-4.18776
AVERAGE	0.69755	0.66456	0.18663	0.30852	3.74	2.15		
STANDARDIZED	0.18287	0.17297	0.04885	0.07089	3.74	2.44		
45-74, UNIVARIATE	0.73968	0.83755	0.18511	0.30809	4.00	2.72	-3.97443	-5.15504
45-74, BIVARIATE	0.64488	0.50423	0.18623	0.31175	3.46	1.62		
45-74, MULTIVARIATE	0.57928	0.30272	0.19205	0.32540	3.02	0.93		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.24 FOR MEN, 2.91 FOR WOMEN.

TABLE 3-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
074-109	826	2	24	30.4	542	1	18	57.3	144	0	0	53.0	20	39.1	44.1
110-119	2272	8	35	33.6	1144	7	61	64.4	284	0	0	61.2	41	45.2	49.4
120-129	2950	9	31	37.2	1750	13	74	72.3	420	4	95	70.7	51	52.3	55.4
130-139	2954	8	27	41.2	1776	13	73	81.3	562	2	36	81.6	43	60.4	62.1
140-149	1944	14	72	45.6	1428	13	91	91.3	530	12	226	94.1	100	69.7	69.6
150-159	1166	6	51	50.5	1004	16	159	102.5	422	3	71	108.5	96	80.5	77.9
160-169	640	5	78	55.9	642	6	93	115.1	280	3	107	125.0	90	92.9	87.3
170-179	334	3	90	61.9	464	6	129	129.2	152	2	132	144.0	116	107.2	97.7
180-189	224	1	45	68.5	268	3	112	144.9	112	2	179	165.8	99	123.6	109.4
190-300	204	0	0	75.8	398	6	151	162.5	194	3	155	190.7	113	142.4	122.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
074-109	1578	0	0	4.6	518	0	0	5.5	100	0	0	12.7	0	5.4	6.7
110-119	3042	1	3	5.2	1242	2	16	6.9	266	1	38	16.0	9	6.9	8.2
120-129	3462	1	3	5.9	1810	1	6	8.7	382	1	26	20.1	5	8.7	10.0
130-139	3442	5	15	6.6	2262	1	4	10.9	674	0	0	25.3	9	11.1	12.2
140-149	2134	0	0	7.5	1932	1	5	13.8	774	3	39	31.8	8	14.0	14.9
150-159	1516	3	20	8.5	1728	1	6	17.3	716	2	28	39.9	15	17.8	18.2
160-169	874	1	11	9.6	1256	4	32	21.8	574	2	35	50.0	26	22.6	22.3
170-179	562	1	18	10.9	870	3	34	27.5	470	1	21	62.7	26	28.6	27.2
180-189	410	0	0	12.3	630	6	95	34.6	302	6	199	78.7	89	36.3	33.2
190-300	436	0	0	14.0	858	4	47	43.6	470	6	128	98.5	57	45.9	40.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01028	0.01238	0.00612	0.00984	1.68	1.26	-6.17719	-8.29279
55-64	0.01183	0.02319	0.00402	0.00569	2.94	4.08	-5.70014	-9.25484
65-74	0.01453	0.02292	0.00599	0.00692	2.42	3.31	-6.06139	-8.37567
AVERAGE	0.01212	0.02130	0.00293	0.00401	4.14	5.31		
STANDARDIZED	0.27512	0.54172	0.06752	0.10303	4.07	5.26		
45-74, UNIVARIATE	0.01459	0.02382	0.00288	0.00353	5.07	6.74	-6.37375	-9.32635
45-74, BIVARIATE	0.01155	0.02011	0.00295	0.00397	3.92	5.06		
45-74, MULTIVARIATE	0.00825	0.02149	0.00327	0.00445	2.52	4.83		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.26 FOR MEN, 0.99 FOR WOMEN.

TABLE 3-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
020-069	832	5	60	29.9	734	5	68	70.2	354	1	28	79.8	57	50.8	49.6
070-074	1688	6	36	32.6	1304	10	77	74.9	520	6	115	85.6	63	54.5	53.6
075-079	1368	5	37	35.6	976	5	51	80.0	322	2	62	91.7	45	58.5	57.9
080-084	3320	8	24	38.9	2146	19	89	85.3	702	8	114	98.2	57	62.8	62.5
085-089	1814	3	17	42.4	1014	5	49	91.0	332	2	60	105.2	32	67.4	67.4
090-094	1896	11	58	46.3	1334	22	165	97.1	402	7	174	112.7	110	72.3	72.8
095-099	902	10	111	50.6	598	4	67	103.6	138	0	0	120.7	85	77.6	78.6
100-104	942	3	32	55.2	658	7	106	110.5	160	4	250	129.2	80	83.2	84.8
105-109	282	3	106	60.3	172	1	58	117.9	34	0	0	138.4	82	89.2	91.5
110-160	470	2	43	65.8	480	6	125	125.7	136	1	74	148.2	83	95.7	98.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
020-069	1600	0	0	4.0	880	0	0	5.9	402	1	25	19.1	3	6.5	6.8
070-074	2810	3	11	4.6	1678	1	6	7.5	588	2	34	23.5	12	8.1	8.4
075-079	1978	0	0	5.3	1220	1	8	9.5	424	1	24	29.0	6	10.1	10.3
080-084	4108	0	0	6.2	2890	2	7	12.1	1100	1	9	35.8	4	12.5	12.7
085-089	2074	2	10	7.2	1584	2	13	15.3	490	1	20	44.1	12	15.5	15.7
090-094	2216	4	18	8.4	2042	5	24	19.5	758	8	106	54.3	34	19.2	19.3
095-099	848	0	0	9.8	834	5	60	24.8	320	1	31	66.8	30	23.9	23.7
100-104	852	0	0	11.4	972	1	10	31.5	346	2	58	82.2	14	29.6	29.2
105-109	272	3	110	13.2	290	1	34	40.1	68	1	147	101.0	79	36.7	35.9
110-160	698	0	0	15.3	716	5	70	50.9	232	4	172	124.1	55	45.5	44.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.01770	0.03017	0.01073	0.01880	1.65	1.61	-6.30894	-9.17744
55-64	0.01319	0.04825	0.00812	0.01274	1.62	3.79	-5.14140	-10.00509
65-74	0.01405	0.04206	0.01281	0.01391	1.10	3.02	-5.06938	-8.40310
AVERAGE	0.01467	0.04238	0.00578	0.00840	2.54	5.04		
STANDARDIZED	0.18576	0.54450	0.07286	0.10814	2.55	5.04		
45-74, UNIVARIATE	0.01427	0.04329	0.00589	0.00806	2.42	5.37	-5.54146	-9.56022
45-74, BIVARIATE	0.01556	0.04177	0.00573	0.00841	2.71	4.97		
45-74, MULTIVARIATE	0.01294	0.04248	0.00598	0.00945	2.16	4.50		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.12 FOR MEN, 0.63 FOR WOMEN.

TABLE 3-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
096-189	1564	5	32	28.9	1152	5	43	66.9	406	1	25	74.1	35	48.8	47.8
190-204	1346	5	37	31.8	992	8	81	71.7	382	6	157	80.6	70	52.8	51.9
205-219	1962	5	25	35.1	1212	10	83	76.9	404	5	124	87.7	56	57.0	56.4
220-234	1996	9	45	38.6	1464	13	89	82.3	478	5	105	95.4	69	61.7	61.4
235-249	1670	6	36	42.5	1294	13	100	88.2	370	2	54	103.7	63	66.7	66.7
250-264	1484	4	27	46.8	1154	8	69	94.5	350	2	57	112.8	47	72.1	72.5
265-279	1060	5	47	51.5	764	9	118	101.2	268	3	112	122.6	81	78.0	78.7
280-294	720	5	69	56.7	480	3	63	108.4	230	3	130	133.3	77	84.3	85.5
295-309	418	2	48	62.4	312	6	192	116.1	90	3	333	144.9	134	91.1	92.9
310-1124	602	8	133	68.6	338	4	118	124.3	102	1	98	157.4	125	98.5	100.9
UNKNOWN	692	2			254	5			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
096-189	1708	0	0	3.2	554	2	36	6.6	154	1	65	21.5	12	7.9	8.2
190-204	1656	1	6	3.6	702	0	0	7.8	206	0	0	24.5	4	9.0	9.3
205-219	2026	1	5	4.0	1030	1	10	9.2	352	1	28	28.0	9	10.2	10.5
220-234	2418	1	4	4.5	1582	2	13	10.9	526	2	38	31.9	11	11.7	11.9
235-249	2174	2	9	5.0	1558	0	0	12.9	604	2	33	36.3	9	13.3	13.5
250-264	1826	0	0	5.5	1702	2	12	15.3	632	0	0	41.4	5	15.1	15.3
265-279	1522	0	0	6.2	1608	5	31	18.0	664	5	75	47.2	26	17.2	17.3
280-294	1130	0	0	6.9	1298	2	15	21.3	476	4	84	53.8	21	19.6	19.6
295-309	734	1	14	7.7	940	4	43	25.2	350	1	29	61.3	30	22.4	22.1
310-1124	1292	3	23	8.5	1698	5	29	29.8	708	6	85	69.8	38	25.5	25.1
UNKNOWN	970	3			434	0			56	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00647	0.00723	0.00261	0.00226	2.48	3.19	-6.32736	-8.66803
55-64	0.00467	0.01123	0.00264	0.00378	1.77	2.97	-5.15225	-8.68165
65-74	0.00571	0.00880	0.00440	0.00446	1.30	1.97	-5.23812	-7.05083
AVERAGE	0.00560	0.00837	0.00171	0.00178	3.27	4.70		
STANDARDIZED	0.23031	0.38438	0.07062	0.08171	3.26	4.70		
45-74, UNIVARIATE	0.00528	0.00870	0.00169	0.00200	3.11	4.34	-5.58363	-8.03811
45-74, BIVARIATE	0.00564	0.00829	0.00173	0.00178	3.27	4.65		
45-74, MULTIVARIATE	0.00541	0.00775	0.00173	0.00180	3.14	4.32		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.23 FOR MEN, 0.84 FOR WOMEN.

TABLE 3-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS		SMOOTHED RATE	PERSON YEARS	EVENTS		SMOOTHED RATE	PERSON YEARS	EVENTS		SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
062-179	1806	7	39	29.2	1180	6	51	84.4	148	0	0	77.2	41	53.9	55.9
180-199	852	2	23	31.8	594	7	118	84.9	74	0	0	81.5	59	56.4	58.0
200-219	1076	4	37	34.6	744	5	67	85.4	224	2	89	86.1	54	59.1	60.3
220-239	1342	3	22	37.6	992	13	131	85.9	280	5	179	91.0	80	61.9	62.7
240-259	1820	8	44	41.0	1386	15	108	86.4	630	7	111	96.1	78	64.9	65.1
260-279	1826	7	38	44.6	1452	11	76	87.0	592	5	84	101.6	59	67.9	67.6
280-299	1564	8	51	48.5	1158	9	78	87.5	460	7	152	107.3	75	71.1	70.2
300-319	1056	3	28	52.8	818	6	73	88.0	374	2	53	113.3	49	74.5	73.0
320-339	774	5	65	57.5	408	3	74	88.5	210	2	95	119.7	72	78.0	75.8
340-968	644	7	109	62.6	406	4	99	89.0	86	1	116	126.4	106	81.7	78.7
UNKNOWN	754	2			278	5			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
062-179	2134	0	0	3.6	1078	2	19	10.0	90	1	111	31.3	9	8.1	10.3
180-199	896	0	0	3.8	614	1	16	11.1	68	0	0	33.5	6	9.2	11.2
200-219	1608	1	6	4.1	992	1	10	12.5	202	1	50	35.8	11	10.4	12.2
220-239	1662	1	6	4.4	1020	1	10	13.9	250	0	0	38.3	7	11.8	13.3
240-259	2192	2	9	4.7	1378	2	15	15.6	500	1	20	41.0	12	13.4	14.4
260-279	2300	2	9	5.1	1770	5	28	17.4	734	4	54	43.8	23	15.3	15.7
280-299	1914	0	0	5.4	1760	1	6	19.5	804	4	50	46.8	11	17.3	17.0
300-319	1648	1	6	5.8	1676	4	24	21.8	886	4	45	50.1	21	19.7	18.5
320-339	1006	1	10	6.3	1100	2	18	24.4	548	2	36	53.6	19	22.3	20.1
340-968	1022	0	0	6.7	1242	4	32	27.3	576	5	87	57.3	32	25.4	21.9
UNKNOWN	1074	4			476	0			70	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00428	0.00353	0.00208	0.00542	2.06	0.65	-5.86502	-7.84461
55-64	0.00030	0.00562	0.00193	0.00365	0.15	1.54	-4.11455	-7.17144
65-74	0.00280	0.00338	0.00403	0.00456	0.70	0.74	-4.63160	-5.64200
AVERAGE	0.00221	0.00448	0.00133	0.00252	1.66	1.78		
STANDARDIZED	0.12586	0.24160	0.07755	0.13936	1.62	1.73		
45-74, UNIVARIATE	0.00234	0.00638	0.00130	0.00200	1.80	3.18	-4.91770	-7.51129
45-74, BIVARIATE	0.00194	0.00418	0.00137	0.00252	1.42	1.66		
45-74, MULTIVARIATE	-0.00103	-0.00324	0.00161	0.00285	-0.64	-1.13		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.99 FOR MEN, 0.19 FOR WOMEN.

TABLE 3-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
029-059	376	2	53	34.3	276	4	145	77.2	68	0	0	77.7	83	53.8	55.3
060-069	2412	9	37	36.5	1476	11	75	80.2	518	3	58	83.6	52	57.2	58.3
070-079	4350	18	41	38.9	2858	19	66	83.2	908	15	165	89.9	64	60.8	61.5
080-089	3162	9	28	41.4	2296	17	74	86.4	694	3	43	96.6	47	64.6	64.8
090-099	1474	7	47	44.1	1126	16	142	89.6	452	5	111	103.8	92	68.6	68.3
100-109	590	2	34	46.9	488	6	123	93.0	154	1	65	111.6	73	72.9	72.0
110-119	276	1	36	50.0	252	3	119	96.5	64	0	0	120.0	68	77.4	75.9
120-129	116	2	172	53.2	138	2	145	100.2	58	1	172	128.9	160	82.3	80.0
130-139	72	0	0	56.6	70	0	0	104.0	52	0	0	138.5	0	87.4	84.3
140-524	254	4	157	60.3	252	2	79	107.9	106	3	283	148.8	147	92.8	88.8
UNKNOWN	432	2			184	4			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
029-059	348	0	0	4.7	274	0	0	13.1	72	0	0	38.6	0	11.8	12.6
060-069	2976	1	3	5.0	1698	5	29	14.4	556	1	18	40.9	13	12.9	13.6
070-079	5838	5	9	5.2	4058	4	10	15.8	1462	7	48	43.4	14	14.1	14.6
080-089	4418	2	5	5.4	3580	5	14	17.3	1242	7	56	46.0	15	15.5	15.7
090-099	1814	0	0	5.7	1606	2	12	18.9	626	3	48	48.8	12	17.0	16.9
100-109	696	0	0	6.0	718	3	42	20.7	326	2	61	51.7	29	18.6	18.1
110-119	334	0	0	6.2	298	2	67	22.7	124	1	81	54.8	40	20.4	19.5
120-129	116	0	0	6.5	222	0	0	24.9	110	0	0	58.1	0	22.4	21.0
130-139	50	0	0	6.8	66	0	0	27.2	40	0	0	61.6	0	24.6	22.6
140-524	188	1	53	7.1	286	2	70	29.8	124	1	81	65.4	67	26.9	24.3
UNKNOWN	678	3			300	0			46	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00633	0.00454	0.00343	0.01333	1.85	0.34	-5.32302	-7.20813
55-64	0.00378	0.00917	0.00331	0.00383	1.14	2.40	-4.36293	-6.44455
65-74	0.00738	0.00592	0.00339	0.00579	2.18	1.02	-4.55412	-5.18268
AVERAGE	0.00579	0.00798	0.00195	0.00310	2.97	2.57		
STANDARDIZED	0.15025	0.19472	0.05120	0.07640	2.93	2.55		
45-74, UNIVARIATE	0.00615	0.00923	0.00191	0.00296	3.21	3.11	-4.85899	-6.55712
45-74, BIVARIATE	0.00536	0.00730	0.00197	0.00319	2.72	2.29		
45-74, MULTIVARIATE	0.00502	0.00528	0.00202	0.00335	2.48	1.58		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.61 FOR MEN, 0.29 FOR WOMEN.

TABLE 3-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
065-099	1188	3	25	31.3	848	9	106	79.1	320	3	94	94.5	64	57.0	55.6
100-104	844	2	24	33.1	538	5	93	81.2	194	1	52	95.8	51	58.7	57.6
105-109	1248	3	24	35.0	776	4	52	83.3	292	6	205	97.0	56	60.5	59.7
110-114	1458	6	41	37.1	1144	8	70	85.5	358	1	28	98.2	51	62.4	61.8
115-119	1704	9	53	39.3	1302	9	69	87.7	410	6	146	99.5	70	64.3	64.0
120-124	1862	9	48	41.5	1360	12	88	90.0	422	4	95	100.7	69	66.3	66.3
125-129	1528	4	26	44.0	1050	12	114	92.4	320	1	31	102.0	59	68.3	68.7
130-134	1302	5	38	46.5	928	10	108	94.8	326	3	92	103.3	70	70.4	71.1
135-139	762	7	92	49.3	538	5	93	97.3	178	3	169	104.7	101	72.5	73.6
140-272	1616	8	50	52.1	930	10	108	99.9	280	3	107	106.0	74	74.8	76.3
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
065-099	2062	0	0	5.3	1050	2	19	14.4	472	5	106	47.9	20	13.5	14.4
100-104	1556	2	13	5.6	842	1	12	14.9	306	0	0	47.6	11	13.9	14.7
105-109	1970	0	0	5.9	1256	1	8	15.4	348	1	29	47.4	6	14.4	15.0
110-114	2064	1	5	6.2	1302	3	23	15.9	430	2	47	47.1	16	14.9	15.4
115-119	1964	2	10	6.5	1454	1	7	16.5	522	2	38	46.9	13	15.4	15.7
120-124	1708	1	6	6.8	1484	4	27	17.0	490	4	82	46.7	24	15.9	16.0
125-129	1404	0	0	7.1	1198	2	17	17.6	436	1	23	46.4	10	16.4	16.4
130-134	1058	1	9	7.5	986	2	20	18.2	322	1	31	46.2	17	17.0	16.7
135-139	874	3	34	7.9	764	1	13	18.8	328	1	30	45.9	25	17.6	17.1
140-272	2796	2	7	8.3	2770	6	22	19.5	1074	5	47	45.7	20	18.1	17.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01145	0.00986	0.00807	0.01119	1.42	0.88	-6.18400	-7.80832
55-64	0.00527	0.00667	0.00712	0.00847	0.74	0.79	-4.64388	-6.49577
65-74	0.00259	-0.00103	0.01127	0.00943	0.23	-0.11	-4.20209	-4.53921
AVERAGE	0.00699	0.00483	0.00483	0.00549	1.45	0.88		
STANDARDIZED	0.10899	0.11012	0.07574	0.12294	1.44	0.90		
45-74, UNIVARIATE	0.00613	0.00666	0.00480	0.00540	1.28	1.23	-5.06071	-6.56467
45-74, BIVARIATE	0.00714	0.00428	0.00482	0.00557	1.48	0.77		
45-74, MULTIVARIATE	0.00566	-0.00376	0.00504	0.00615	1.12	-0.61		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.52 FOR MEN, 0.63 FOR WOMEN.

TABLE 3-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
12-31	154	1	65	70.0	274	2	73	103.5	208	3	144	110.8	94	104.2	78.4
32-35	148	1	68	64.0	296	0	0	100.5	218	1	46	107.0	30	95.2	75.8
36-39	452	0	0	58.5	542	12	221	97.5	326	1	31	103.4	98	87.0	73.2
40-43	770	7	91	53.4	1018	6	59	94.7	506	6	119	99.9	83	79.5	70.8
44-47	1636	6	37	48.8	1558	17	109	91.9	544	9	165	96.5	86	72.6	68.4
48-51	1712	11	64	44.6	1494	16	107	89.2	492	5	102	93.2	87	66.3	66.1
52-55	2532	11	43	40.7	1646	9	55	86.6	396	3	76	90.0	50	60.5	63.9
56-59	2390	8	33	37.2	1254	13	104	84.1	236	1	42	87.0	57	55.2	61.7
60-63	1788	6	34	34.0	776	5	64	81.6	104	0	0	84.0	41	50.4	59.7
64-85	1924	5	26	31.0	530	4	75	79.2	56	1	179	81.1	40	46.0	57.7
UNKNOWN	8	0			28	0			14	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
04-19	82	0	0	13.3	256	0	0	30.0	260	2	77	60.7	33	44.6	24.2
20-23	194	0	0	11.8	378	1	26	26.5	282	2	71	56.2	35	35.7	22.2
24-27	390	1	26	10.5	834	0	0	23.4	562	1	18	52.0	11	28.5	20.5
28-31	972	0	0	9.3	1726	5	29	20.7	944	4	42	48.1	25	22.8	18.8
32-35	2156	3	14	8.3	2824	8	28	18.3	1144	7	61	44.5	29	18.2	17.3
36-39	3016	2	7	7.4	2760	4	14	16.1	800	4	50	41.2	15	14.6	16.0
40-43	4080	2	5	6.5	2318	4	17	14.2	458	1	22	38.1	10	11.7	14.7
44-47	3262	2	6	5.8	1258	1	8	12.6	200	1	50	35.2	8	9.3	13.5
48-51	2048	2	10	5.2	500	0	0	11.1	60	0	0	32.6	8	7.4	12.4
52-77	1238	0	0	4.6	238	0	0	9.8	18	0	0	30.1	0	5.9	11.4
UNKNOWN	18	0			14	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.02282	-0.02969	0.01450	0.03784	-1.57	-0.78	-3.56983	-5.39152
55-64	-0.00756	-0.03112	0.01200	0.02716	-0.63	-1.15	-3.63000	-4.55059
65-74	-0.00883	-0.01963	0.02026	0.02841	-0.44	-0.69	-3.52204	-4.04570
AVERAGE	-0.01291	-0.02649	0.00841	0.01742	-1.54	-1.52		
STANDARDIZED	-0.11736	-0.19669	0.07629	0.12942	-1.54	-1.52		
45-74, UNIVARIATE	-0.02304	-0.05618	0.00791	0.01547	-2.91	-3.63	-3.15831	-3.69953
45-74, BIVARIATE	-0.00866	-0.02086	0.00855	0.01782	-1.01	-1.17		
45-74, MULTIVARIATE	0.00081	-0.00486	0.00891	0.01944	0.09	-0.25		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.71 FOR MEN, 0.09 FOR WOMEN.

TABLE 3-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
37-63	2118	9	42	40.9	1800	12	67	84.7	516	5	97	99.5	59	64.6	63.9
64-67	1306	4	31	41.1	980	8	82	86.1	364	6	165	99.7	68	64.9	64.4
68-71	1824	6	33	41.2	1288	14	109	87.5	472	3	64	99.8	64	65.3	65.0
72-75	2572	14	54	41.4	1756	16	91	88.9	606	3	50	100.0	67	65.6	65.5
76-79	736	1	14	41.5	446	6	135	90.3	118	1	85	100.1	62	65.9	66.0
80-83	1628	8	49	41.7	1078	7	65	91.7	344	6	174	100.3	69	66.2	66.6
84-87	972	3	31	41.8	620	8	129	93.2	188	3	160	100.4	79	66.6	67.1
88-91	960	7	73	42.0	534	3	56	94.7	168	1	60	100.6	66	66.9	67.7
92-95	498	1	20	42.1	342	5	146	96.2	114	1	88	100.7	73	67.2	68.2
96-170	900	3	33	42.3	572	5	87	97.8	210	2	95	100.9	59	67.6	68.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
37-63	1744	1	6	7.5	1564	1	6	12.2	480	3	63	45.1	13	13.4	14.0
64-67	1548	0	0	7.3	1008	0	0	13.3	328	0	0	45.5	0	14.0	14.5
68-71	2294	3	13	7.2	1624	2	12	14.4	570	2	35	45.8	16	14.6	15.0
72-75	3474	3	9	7.0	2530	6	24	15.6	758	4	53	46.1	19	15.3	15.5
76-79	980	2	20	6.9	798	1	13	16.9	218	2	92	46.4	25	16.0	16.0
80-83	2300	1	4	6.7	1742	3	17	18.4	748	4	53	46.7	17	16.7	16.6
84-87	1568	0	0	6.6	1044	3	29	19.9	438	3	68	47.1	20	17.5	17.2
88-91	1252	0	0	6.4	976	4	41	21.6	398	2	50	47.4	23	18.2	17.7
92-95	778	1	13	6.3	636	1	16	23.5	256	1	39	47.7	18	19.1	18.3
96-170	1518	1	7	6.1	1184	2	17	25.5	534	1	19	48.0	12	19.9	19.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00090	-0.00553	0.01070	0.02397	0.08	-0.23	-4.85294	-6.15923
55-64	0.00405	0.02049	0.00831	0.01409	0.49	1.45	-4.31171	-7.28193
65-74	0.00039	0.00175	0.01371	0.01635	0.03	0.11	-3.92120	-4.80662
AVERAGE	0.00240	0.00952	0.00592	0.00975	0.41	0.98		
STANDARDIZED	0.03080	0.12112	0.07618	0.12475	0.40	0.97		
45-74, UNIVARIATE	0.00127	0.01113	0.00599	0.00996	0.21	1.12	-4.41452	-6.61124
45-74, BIVARIATE	0.00207	0.00839	0.00591	0.00994	0.35	0.84		
45-74, MULTIVARIATE	-0.00718	0.00223	0.00632	0.01058	-1.14	0.21		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.08 FOR MEN, 1.23 FOR WOMEN.

TABLE 3-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NONE	5114	8	16	21.5	4570	30	66	70.3	1868	21	112	112.2	51	54.5	48.2
UNDER 20	1912	6	31	31.9	1482	15	101	85.8	544	4	74	93.9	63	62.9	60.7
20	3124	24	77	47.3	1832	21	115	104.6	368	5	136	78.6	94	72.6	76.3
OVER 20	3296	17	52	70.1	1490	17	114	127.4	310	1	32	65.7	69	83.7	95.8
UNKNOWN	68	1			42	1			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NONE	9812	6	6	5.3	9212	14	15	16.3	3778	18	48	48.5	17	16.5	14.6
UNDER 20	4096	2	5	7.3	2264	6	27	19.0	626	3	48	42.0	16	16.0	17.3
20	2454	2	8	9.9	1080	2	19	22.2	220	1	45	36.3	13	15.5	20.4
OVER 20	1026	2	19	13.5	502	1	20	25.9	82	0	0	31.4	19	15.0	24.1
UNKNOWN	68	0			48	0			22	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.39707	0.31251	0.11772	0.27556	3.37	1.13	-5.44437	-6.84680
55-64	0.20205	0.15551	0.09232	0.23460	2.19	0.66	-4.24998	-5.72391
65-74	-0.18172	-0.14539	0.19897	0.37914	-0.91	-0.38	-3.77400	-4.62633
AVERAGE	0.22244	0.15484	0.06824	0.16159	3.26	0.96		
STANDARDIZED	0.24520	0.10446	0.07855	0.12787	3.12	0.82		
45-74, UNIVARIATE	0.14508	-0.03256	0.06366	0.15781	2.28	-0.21	-4.50825	-5.71047
45-74, BIVARIATE	0.23281	0.16689	0.06547	0.15821	3.56	1.05		
45-74, MULTIVARIATE	0.27827	0.24169	0.06705	0.16378	4.15	1.48		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 6.38 FOR MEN, 0.95 FOR WOMEN.

TABLE 3-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	7100	22	31	30.5	4330	26	60	67.8	1214	4	33	53.2	41	45.5	47.6
BORDER	4116	18	44	45.5	3028	35	116	93.3	1212	17	140	99.6	84	70.4	70.3
DEFINITE	2298	16	70	68.0	2058	23	112	128.1	674	10	148	184.9	97	108.5	103.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	9876	4	4	5.1	4886	2	4	5.4	1136	2	18	14.8	5	5.8	7.5
BORDER	4980	6	12	7.8	4696	8	17	14.4	1908	6	31	34.8	17	15.1	16.0
DEFINITE	2600	2	8	11.8	3524	13	37	38.6	1684	14	83	81.2	37	38.8	34.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.40534	0.41675	0.16611	0.35849	2.44	1.16	-5.09467	-6.88151
55-64	0.32420	0.99138	0.13541	0.30242	2.39	3.28	-4.28650	-6.83790
65-74	0.63605	0.85790	0.24004	0.33812	2.65	2.54	-4.53174	-5.81911
AVERAGE	0.40145	0.78605	0.09616	0.19082	4.17	4.12		
STANDARDIZED	0.31079	0.59692	0.07422	0.14632	4.19	4.08		
45-74, UNIVARIATE	0.44053	0.95031	0.09518	0.17763	4.63	5.35	-4.68935	-6.75225
45-74, BIVARIATE	0.39511	0.75835	0.09620	0.18493	4.11	4.10		
45-74, MULTIVARIATE	0.31928	0.72118	0.10256	0.19461	3.11	3.71		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.28 FOR MEN, 1.57 FOR WOMEN.

TABLE 3-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	11428	47	41	41.0	7252	56	77	77.5	2068	21	102	97.8	60	59.5	61.9
POSSIBLE	1002	4	40	43.0	992	11	111	106.9	448	3	67	102.0	74	77.5	73.3
DEFINITE	1076	5	46	45.0	1170	17	145	147.0	584	7	120	106.4	102	100.8	86.8
UNKNOWN	8	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	14118	9	6	6.7	8342	9	11	11.3	2264	11	49	43.8	12	11.8	14.0
POSSIBLE	1580	2	13	7.4	2068	5	24	19.9	884	2	23	46.9	20	19.4	18.2
DEFINITE	1746	1	6	8.1	2688	9	33	35.1	1580	9	57	50.2	32	31.8	23.6
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.04756	0.09864	0.22352	0.42660	0.21	0.23	-4.79555	-6.61806
55-64	0.32724	0.56864	0.13620	0.23071	2.40	2.46	-4.15135	-6.08892
65-74	0.04339	0.06800	0.22535	0.23901	0.19	0.28	-3.91501	-4.72769
AVERAGE	0.20774	0.29712	0.10335	0.15469	2.01	1.92		
STANDARDIZED	0.13881	0.23935	0.07010	0.12475	1.98	1.92		
45-74, UNIVARIATE	0.26758	0.49845	0.10127	0.14703	2.64	3.39	-4.41856	-6.04880
45-74, BIVARIATE	0.17154	0.26135	0.10354	0.15482	1.66	1.69		
45-74, MULTIVARIATE	0.08809	0.08813	0.11381	0.16640	0.77	0.53		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.82 FOR MEN, 2.52 FOR WOMEN.

TABLE 3-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	13074	54	41	41.7	8820	73	83	82.0	2896	25	86	85.4	61	61.1	62.0
POSSIBLE	254	2	79	35.2	358	4	112	148.6	82	1	122	184.4	101	114.2	106.2
DEFINITE	186	0	0	29.7	238	7	294	266.4	122	5	410	388.9	220	211.3	180.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	17144	12	7	******	12444	22	18	17.4	4394	20	46	45.6	16	15.8	16.1
POSSIBLE	200	0	0	******	382	0	0	19.7	174	1	57	54.1	13	21.9	17.7
DEFINITE	112	0	0	******	280	1	36	22.3	160	1	63	64.3	36	30.3	19.5
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.17091	*******	0.57592	*******	-0.30	****	-4.77769	********
55-64	0.60809	0.12496	0.19768	0.57156	3.08	0.22	-4.09372	-5.65856
65-74	0.78954	0.17396	0.25399	0.46667	3.11	0.37	-4.05212	-4.68851
AVERAGE	0.61861	0.15436	0.15057	0.36148	4.11	0.43		
STANDARDIZED	0.21573	0.05573	0.05534	0.13312	3.90	0.42		
45-74, UNIVARIATE	0.63563	0.32728	0.14640	0.35663	4.34	0.92	-4.39191	-5.75437
45-74, BIVARIATE	0.54830	0.09809	0.14767	0.36245	3.71	0.27		
45-74, MULTIVARIATE	0.45191	-0.31037	0.16317	0.38182	2.77	-0.81		

CHI SQUARE FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.34 (2 DF) FOR MEN, 0.00 (1 DF) FOR WOMEN.

TABLE 3-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	13370	54	40	40.4	9202	84	91	91.3	2946	30	102	101.8	66	65.8	66.1
YES	144	2	139	138.9	214	0	0	0.0	154	1	65	64.9	59	58.6	44.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	17358	12	7	6.9	12898	23	18	17.8	4660	22	47	47.2	16	16.3	*****
YES	98	0	0	0.0	208	0	0	0.0	68	0	0	0.0	0	0.0	*****
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.25518	********	0.73004	*******	1.72	*****	-4.81053	********
55-64	********	********	*******	*******	*****	*****	********	********
65-74	-0.45745	********	1.02332	*******	-0.45	*****	-3.87328	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	-0.11800	********	0.58593	*******	-0.20	*****	-4.31677	********
45-74, BIVARIATE	-0.40330	********	0.58865	*******	-0.69	*****		
45-74, MULTIVARIATE	-0.31764	********	0.59093	*******	-0.54	*****		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

TABLE 3-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	12910	53	41	41.1	8812	78	89	88.5	2816	25	89	88.8	64	63.6	64.3
YES	604	3	50	49.7	604	6	99	99.3	284	6	211	211.3	101	100.5	88.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	16838	11	7	6.5	12282	21	17	17.1	4298	18	42	41.9	15	15.0	15.5
YES	618	1	16	16.2	824	2	24	24.3	430	4	93	93.0	37	37.4	28.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.19224	0.90894	0.59641	1.04608	0.32	0.87	-4.79407	-6.63904
55-64	0.11755	0.35178	0.42790	0.74177	0.27	0.47	-4.01615	-5.67479
65-74	0.89224	0.80841	0.46340	0.55746	1.93	1.45	-4.01313	-4.77397
AVERAGE	0.41280	0.68436	0.27810	0.40999	1.48	1.67		
STANDARDIZED	0.09230	0.16760	0.06856	0.10180	1.35	1.65		
45-74, UNIVARIATE	0.46582	0.92048	0.27300	0.40496	1.71	2.27	-4.35218	-5.80868
45-74, BIVARIATE	0.32172	0.61232	0.27474	0.40901	1.17	1.50		
45-74, MULTIVARIATE	0.00421	0.31208	0.28691	0.44240	0.01	0.71		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.68 FOR MEN, 0.30 FOR WOMEN.

TABLE 3-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	13260	53	40	40.0	9054	77	85	85.0	2956	29	98	98.1	63	62.9	63.6
YES	212	3	142	141.5	328	6	183	182.9	136	2	147	147.1	163	162.7	138.0
UNKNOWN	42	0			34	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	16852	12	7	7.1	12716	22	17	17.3	4574	19	42	41.5	16	15.5	15.4
YES	562	0	0	0.0	350	1	29	28.6	138	3	217	217.4	38	38.1	40.8
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.28493	********	0.60172	*******	2.14	*****	-4.82104	********
55-64	0.78602	0.50391	0.43152	1.02536	1.82	0.49	-4.05685	-5.66296
65-74	0.41483	1.69117	0.74184	0.63369	0.56	2.67	-3.91133	-4.78221
AVERAGE	0.85672	*******	0.31703	*******	2.70	****		
STANDARDIZED	0.14494	*******	0.05126	*******	2.83	****		
45-74, UNIVARIATE	0.97059	0.90228	0.31676	0.52043	3.06	1.73	-4.36266	-5.77174
45-74, BIVARIATE	0.79322	0.97894	0.31895	0.52203	2.49	1.88		
45-74, MULTIVARIATE	0.23943	0.55091	0.35914	0.58757	0.67	0.94		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.89 FOR MEN.

TABLE 3-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	13152	52	40	39.5	9080	77	85	84.8	2954	27	91	91.4	62	61.9	62.5
YES	324	4	123	123.5	302	6	199	198.7	138	4	290	289.9	183	183.2	166.0
UNKNOWN	38	0			34	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	17228	12	7	7.0	12844	20	16	15.6	4626	21	45	45.4	15	15.3	15.4
YES	188	0	0	0.0	226	3	133	132.7	86	1	116	116.3	80	80.0	68.9
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.15570	********	0.52508	*******	2.20	*****	-4.83200	********
55-64	0.87480	2.16677	0.43217	0.62656	2.02	3.46	-4.05977	-5.76863
65-74	1.19539	0.95499	0.55056	1.03531	2.17	0.92	-3.98348	-4.69266
AVERAGE	1.04389	*******	0.28536	*******	3.66	****		
STANDARDIZED	0.18080	*******	0.04977	*******	3.63	****		
45-74, UNIVARIATE	1.10955	1.66890	0.28397	0.52249	3.91	3.19	-4.37858	-5.78794
45-74, BIVARIATE	1.00281	1.50952	0.28548	0.52538	3.51	2.87		
45-74, MULTIVARIATE	0.95376	1.43639	0.29958	0.53648	3.18	2.68		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.27 FOR MEN.

TABLE 3-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	13116	53	40	40.4	8954	79	88	88.2	2888	27	93	93.5	64	63.7	64.3
YES	398	3	75	75.4	462	5	108	108.2	212	4	189	188.7	112	111.9	97.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	17128	11	6	6.4	12630	20	16	15.8	4430	20	45	45.1	15	14.9	15.4
YES	328	1	30	30.5	476	3	63	63.0	298	2	67	67.1	54	54.4	39.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.63053	1.56239	0.59788	1.04745	1.05	1.49	-4.81003	-6.65614
55-64	0.20836	1.39081	0.46617	0.62269	0.45	2.23	-4.01946	-5.75178
65-74	0.72178	0.40092	0.54548	0.74650	1.32	0.54	-3.96046	-4.69820
AVERAGE	0.47848	1.08428	0.30485	0.43499	1.57	2.49		
STANDARDIZED	0.09824	0.21253	0.06335	0.08072	1.55	2.63		
45-74, UNIVARIATE	0.57349	1.30264	0.30268	0.43378	1.89	3.00	-4.35007	-5.81167
45-74, BIVARIATE	0.42274	0.93466	0.30435	0.43897	1.39	2.13		
45-74, MULTIVARIATE	0.46720	0.64614	0.30852	0.46298	1.51	1.40		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.60 FOR MEN, 1.29 FOR WOMEN.

TABLE 3-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: MYOCARDIAL INFARCTION
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	56	41		9416	84	89		3100	31	100		66		
NO	12736	47	37	36.9	8672	74	85	85.3	2774	25	90	90.1	60	60.4	61.3
YES	778	9	116	115.7	744	10	134	134.4	326	6	184	184.0	135	135.3	122.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	12	7		13106	23	18		4728	22	47		16		
NO	16886	11	7	6.5	12300	19	15	15.4	4280	20	47	46.7	15	14.9	15.5
YES	570	1	18	17.5	806	4	50	49.6	448	2	45	44.6	38	38.4	28.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.15854	0.99292	0.36766	1.04621	3.15	0.95	-4.90148	-6.64189
55-64	0.46437	1.17401	0.34134	0.55254	1.36	2.12	-4.05343	-5.77667
65-74	0.73335	-0.04609	0.46235	0.74497	1.59	-0.06	-3.99783	-4.66344
AVERAGE	0.77385	0.77943	0.22001	0.40856	3.52	1.91		
STANDARDIZED	0.20645	0.19525	0.05736	0.09683	3.60	2.02		
45-74, UNIVARIATE	0.82205	0.94810	0.21919	0.40500	3.75	2.34	-4.40446	-5.81012
45-74, BIVARIATE	0.70996	0.61570	0.22057	0.40954	3.22	1.50		
45-74, MULTIVARIATE	0.66977	0.42072	0.22755	0.42686	2.94	0.99		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.92 FOR MEN, 1.78 FOR WOMEN.

TABLE 4-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
074-109	826	0	0	7.4	542	0	0	5.5	144	1	69	18.1	7	7.6	8.0
110-119	2272	1	4	8.4	1144	1	9	6.5	284	0	0	18.4	5	8.7	8.9
120-129	2950	4	14	9.6	1750	1	6	7.6	420	0	0	18.7	10	9.8	10.0
130-139	2954	3	10	10.9	1776	2	11	9.0	562	0	0	19.0	9	11.1	11.2
140-149	1944	5	26	12.5	1428	2	14	10.6	530	2	38	19.4	23	12.6	12.6
150-159	1166	0	0	14.2	1004	0	0	12.6	422	0	0	19.7	0	14.3	14.1
160-169	640	0	0	16.2	642	1	16	14.8	280	2	71	20.0	19	16.2	15.8
170-179	334	1	30	18.5	464	0	0	17.5	152	1	66	20.4	21	18.4	17.8
180-189	224	1	45	21.0	268	1	37	20.7	112	0	0	20.7	33	20.9	19.9
190-300	204	0	0	24.0	398	2	50	24.4	194	0	0	21.1	25	23.7	22.3
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
074-109	1578	2	13	3.7	518	0	0	6.5	100	0	0	5.9	9	4.3	5.3
110-119	3042	0	0	3.6	1242	1	8	7.5	266	0	0	6.6	2	4.9	5.9
120-129	3462	1	3	3.5	1810	2	11	8.7	382	1	26	7.4	7	5.7	6.5
130-139	3442	0	0	3.4	2262	3	13	10.1	674	0	0	8.2	5	6.7	7.2
140-149	2134	1	5	3.3	1932	1	5	11.8	774	0	0	9.2	4	7.7	8.0
150-159	1516	1	7	3.3	1728	1	6	13.7	716	2	28	10.3	10	9.0	8.8
160-169	874	1	11	3.2	1256	2	16	15.8	574	0	0	11.5	11	10.4	9.7
170-179	562	0	0	3.1	870	2	23	18.4	470	1	21	12.9	16	12.1	10.8
180-189	410	0	0	3.0	630	1	16	21.3	302	0	0	14.4	7	14.1	11.9
190-300	436	0	0	2.9	858	4	47	24.8	470	1	21	16.2	28	16.4	13.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	WOMEN	STANDARD ERROR MEN	WOMEN	T-VALUE MEN	WOMEN	INTERCEPT OF FUNCTION MEN	WOMEN
45-54	0.01315	-0.00254	0.01139	0.01812	1.15	-0.14	-7.89912	-6.94425
55-64	0.01667	0.01495	0.01075	0.00754	1.55	1.98	-8.56757	-8.21692
65-74	0.00170	0.01126	0.01567	0.01568	0.11	0.72	-5.79614	-7.92793
AVERAGE	0.01236	0.01219	0.00699	0.00636	1.77	1.92		
STANDARDIZED	0.27805	0.30888	0.15588	0.16440	1.78	1.88		
45-74, UNIVARIATE	0.01260	0.01499	0.00683	0.00584	1.84	2.57	-7.80675	-8.64270
45-74, BIVARIATE	0.01145	0.01004	0.00700	0.00655	1.63	1.53		
45-74, MULTIVARIATE	0.00960	0.00876	0.00756	0.00692	1.27	1.27		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.63 FOR MEN, 0.80 FOR WOMEN.

TABLE 4-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
020-069	832	0	0	5.6	734	0	0	5.7	354	2	56	19.8	10	7.4	7.4
070-074	1688	0	0	6.7	1304	3	23	6.7	520	0	0	19.6	9	8.4	8.3
075-079	1368	2	15	7.9	976	1	10	7.8	322	0	0	19.5	11	9.5	9.5
080-084	3320	3	9	9.4	2146	0	0	9.1	702	1	14	19.4	6	10.7	10.7
085-089	1814	3	17	11.1	1014	0	0	10.6	332	0	0	19.2	9	12.2	12.2
090-094	1896	1	5	13.2	1334	2	15	12.3	402	1	25	19.1	11	13.8	13.8
095-099	902	3	33	15.6	598	0	0	14.4	138	1	72	18.9	24	15.6	15.6
100-104	942	1	11	18.5	658	1	15	16.8	160	1	63	18.8	17	17.7	17.7
105-109	282	1	35	21.9	172	0	0	19.6	34	0	0	18.7	20	20.1	20.1
110-160	470	1	21	26.0	480	3	63	22.8	136	0	0	18.5	37	22.7	22.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
020-069	1600	1	6	2.9	880	0	0	13.0	402	0	0	7.7	3	6.8	7.2
070-074	2810	1	4	3.1	1678	2	12	13.0	588	1	17	8.3	8	7.1	7.4
075-079	1978	0	0	3.2	1220	2	16	13.0	424	0	0	9.1	6	7.4	7.6
080-084	4108	1	2	3.4	2890	4	14	13.0	1100	1	9	9.9	7	7.8	7.8
085-089	2074	2	10	3.6	1584	2	13	13.0	490	0	0	10.8	10	8.1	8.1
090-094	2216	0	0	3.7	2042	4	20	12.9	758	2	26	11.7	12	8.5	8.3
095-099	848	0	0	3.9	834	2	24	12.9	320	0	0	12.7	10	8.9	8.5
100-104	852	0	0	4.2	972	0	0	12.9	346	0	0	13.9	0	9.3	8.8
105-109	272	0	0	4.4	290	1	34	12.9	68	1	147	15.1	32	9.7	9.0
110-160	698	1	14	4.6	716	0	0	12.9	232	0	0	16.4	6	10.2	9.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.03400	0.01019	0.01935	0.03058	1.76	0.33	-9.08073	-8.13707
55-64	0.03087	-0.00031	0.02141	0.01876	1.44	-0.02	-8.85769	-5.92530
65-74	-0.00145	0.01696	0.03111	0.03254	-0.05	0.52	-5.43116	-7.62325
AVERAGE	0.02662	0.00536	0.01304	0.01435	2.04	0.37		
STANDARDIZED	0.33567	0.06948	0.16203	0.18472	2.07	0.38		
45-74, UNIVARIATE	0.02508	0.00902	0.01310	0.01412	1.91	0.64	-8.21040	-7.21206
45-74, BIVARIATE	0.02523	0.00569	0.01291	0.01435	1.95	0.40		
45-74, MULTIVARIATE	0.02417	0.00210	0.01372	0.01454	1.76	0.14		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.00 FOR MEN, 0.24 FOR WOMEN.

TABLE 4-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
096-189	1564	0	0	5.2	1152	2	17	8.4	406	0	0	19.6	6	6.9	6.8
190-204	1346	1	7	6.2	992	1	10	9.0	382	0	0	19.6	7	8.0	7.9
205-219	1962	0	0	7.5	1212	1	8	9.7	404	0	0	19.5	3	9.2	9.1
220-234	1996	1	5	9.0	1464	0	0	10.4	478	4	84	19.5	13	10.6	10.6
235-249	1670	2	12	10.7	1294	2	15	11.2	370	2	54	19.5	18	12.2	12.2
250-264	1484	2	13	12.9	1154	0	0	12.0	350	0	0	19.4	7	14.1	14.1
265-279	1060	4	38	15.5	764	1	13	12.9	268	0	0	19.4	24	16.3	16.3
280-294	720	1	14	18.6	480	2	42	13.9	230	0	0	19.3	21	18.8	18.9
295-309	418	1	24	22.3	312	1	32	14.9	90	0	0	19.3	24	21.6	21.8
310-1124	602	3	50	26.7	338	0	0	16.0	102	0	0	19.3	29	24.9	25.2
UNKNOWN	692	0			254	0			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
096-189	1708	0	0	2.0	554	2	36	10.1	154	0	0	3.8	8	4.7	4.6
190-204	1656	0	0	2.2	702	0	0	10.7	206	0	0	4.5	0	5.2	5.2
205-219	2026	1	5	2.5	1030	0	0	11.3	352	0	0	5.3	3	5.8	5.8
220-234	2418	0	0	2.8	1582	1	6	11.8	526	1	19	6.3	4	6.4	6.4
235-249	2174	0	0	3.2	1558	1	6	12.5	604	0	0	7.4	2	7.2	7.2
250-264	1826	1	5	3.6	1702	3	18	13.1	632	1	16	8.8	12	8.0	8.0
265-279	1522	1	7	4.0	1608	4	25	13.8	664	1	15	10.4	16	8.9	8.9
280-294	1130	1	9	4.5	1298	2	15	14.6	476	0	0	12.3	10	9.9	10.0
295-309	734	1	14	5.1	940	1	11	15.3	350	1	29	14.6	15	11.1	11.1
310-1124	1292	1	8	5.8	1698	3	18	16.1	708	1	14	17.2	14	12.3	12.4
UNKNOWN	970	0			434	0			56	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT): REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01219	0.00802	0.00326	0.00228	3.74	3.51	-9.09695	-9.31216
55-64	0.00482	0.00345	0.00729	0.00505	0.66	0.68	-7.27144	-6.82701
65-74	-0.00012	0.01128	0.01008	0.00900	-0.01	1.25	-5.51483	-9.24786
AVERAGE	0.01007	0.00745	0.00286	0.00203	3.53	3.67		
STANDARDIZED	0.41998	0.34362	0.12010	0.09349	3.50	3.68		
45-74, UNIVARIATE	0.00950	0.00724	0.00305	0.00198	3.11	3.66	-8.31351	-8.29951
45-74, BIVARIATE	0.00972	0.00729	0.00308	0.00212	3.15	3.44		
45-74, MULTIVARIATE	0.00923	0.00821	0.00309	0.00244	2.99	3.36		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.96 FOR MEN, 0.87 FOR WOMEN.

TABLE 4-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
062-179	1806	0	0	5.8	1180	1	8	9.0	148	0	0	7.0	3	7.0	7.0
180-199	852	1	12	6.8	594	0	0	9.4	74	0	0	8.5	7	8.0	8.0
200-219	1076	2	19	7.8	744	1	13	9.9	224	0	0	10.4	15	9.0	9.0
220-239	1342	1	7	9.1	992	2	20	10.4	280	0	0	12.6	11	10.2	10.2
240-259	1820	3	16	10.6	1386	2	14	10.8	630	1	16	15.4	16	11.5	11.5
260-279	1826	2	11	12.2	1452	2	14	11.4	592	1	17	18.7	13	13.0	13.0
280-299	1564	1	6	14.2	1158	0	0	11.9	460	2	43	22.8	9	14.7	14.7
300-319	1056	1	9	16.5	818	1	12	12.5	374	1	27	27.7	13	16.6	16.6
320-339	774	1	13	19.1	408	0	0	13.1	210	1	48	33.6	14	18.8	18.8
340-968	644	3	47	22.1	406	1	25	13.7	86	0	0	40.9	35	21.2	21.2
UNKNOWN	754	0			278	0			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
062-179	2134	0	0	1.8	1078	0	0	7.4	90	0	0	2.7	0	3.9	4.4
180-199	896	0	0	2.1	614	0	0	8.3	68	0	0	3.4	0	4.5	4.9
200-219	1608	1	6	2.4	992	2	20	9.3	202	0	0	4.1	11	5.2	5.6
220-239	1662	0	0	2.8	1020	3	29	10.4	250	0	0	5.1	10	6.0	6.3
240-259	2192	0	0	3.2	1378	1	7	11.6	500	0	0	6.3	2	6.9	7.2
260-279	2300	2	9	3.7	1770	3	17	12.9	734	0	0	7.8	10	7.9	8.1
280-299	1914	0	0	4.3	1760	0	0	14.4	804	2	25	9.6	4	9.2	9.1
300-319	1648	1	6	5.0	1676	3	18	16.1	886	2	23	11.9	14	10.5	10.3
320-339	1006	1	10	5.7	1100	2	18	18.0	548	0	0	14.6	11	12.1	11.7
340-968	1022	1	10	6.6	1242	3	24	20.1	576	1	17	18.0	18	14.0	13.2
UNKNOWN	1074	0			476	0			70	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00742	0.00712	0.00351	0.00404	2.11	1.76	-8.01327	-9.12060
55-64	0.00234	0.00553	0.00530	0.00424	0.44	1.30	-6.71719	-7.44886
65-74	0.00983	0.01053	0.00853	0.00895	1.15	1.18	-8.23870	-9.30717
AVERAGE	0.00629	0.00676	0.00277	0.00278	2.27	2.43		
STANDARDIZED	0.37222	0.40234	0.16328	0.16388	2.28	2.46		
45-74, UNIVARIATE	0.00615	0.00709	0.00270	0.00250	2.28	2.83	-7.60999	-8.35879
45-74, BIVARIATE	0.00615	0.00615	0.00274	0.00306	2.24	2.01		
45-74, MULTIVARIATE	0.00133	0.00102	0.00348	0.00401	0.38	0.26		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.83 FOR MEN, 0.27 FOR WOMEN.

TABLE 4-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
029-059	376	1	27	8.8	276	0	0	10.0	68	0	0	11.5	14	9.0	9.1
060-069	2412	2	8	9.6	1476	1	7	10.3	518	0	0	12.9	7	9.9	10.0
070-079	4350	4	9	10.4	2858	0	0	10.5	908	0	0	14.6	5	10.8	10.9
080-089	3162	3	9	11.4	2296	6	26	10.8	694	2	29	16.5	18	11.8	11.9
090-099	1474	2	14	12.4	1126	2	18	11.1	452	1	22	18.7	16	13.0	13.0
100-109	590	0	0	13.5	488	1	20	11.4	154	0	0	21.1	8	14.2	14.1
110-119	276	2	72	14.7	252	0	0	11.7	64	0	0	23.8	34	15.5	15.4
120-129	116	0	0	16.0	138	0	0	12.0	58	1	172	26.9	32	17.0	16.9
130-139	72	0	0	17.4	70	0	0	12.3	52	0	0	30.4	0	18.6	18.4
140-524	254	1	39	18.9	252	0	0	12.7	106	2	189	34.3	49	20.3	20.1
UNKNOWN	432	0			184	0			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
029-059	348	1	29	2.6	274	0	0	14.9	72	0	0	16.6	14	7.9	8.5
060-069	2976	0	0	2.9	1698	3	18	14.3	556	1	18	14.2	8	8.0	8.4
070-079	5838	2	3	3.2	4058	5	12	13.7	1462	2	14	12.1	8	8.1	8.3
080-089	4418	1	2	3.6	3580	6	17	13.2	1242	1	8	10.3	9	8.2	8.1
090-099	1814	1	6	4.0	1606	0	0	12.7	626	1	16	8.8	5	8.3	8.0
100-109	696	0	0	4.5	718	1	14	12.2	326	0	0	7.5	6	8.4	7.9
110-119	334	0	0	5.0	298	2	67	11.7	124	0	0	6.4	26	8.5	7.8
120-129	116	0	0	5.5	222	0	0	11.2	110	0	0	5.5	0	8.6	7.7
130-139	50	0	0	6.2	66	0	0	10.8	40	0	0	4.7	0	8.7	7.6
140-524	188	1	53	6.9	286	0	0	10.4	124	0	0	4.0	17	8.8	7.5
UNKNOWN	678	0			300	0			46	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.00852	0.01075	0.00491	0.01008	1.74	1.07	-6.80845	-8.14673
55-64	0.00263	-0.00401	0.01006	0.01219	0.26	-0.33	-6.35716	-5.59370
65-74	0.01224	-0.01582	0.00466	0.02948	2.63	-0.54	-6.74975	-4.83384
AVERAGE	0.00968	0.00342	0.00320	0.00751	3.02	0.45		
STANDARDIZED	0.24820	0.09443	0.08462	0.15968	2.93	0.59		
45-74, UNIVARIATE	0.00903	0.00124	0.00315	0.00779	2.86	0.16	-6.81051	-6.51795
45-74, BIVARIATE	0.00879	-0.00148	0.00319	0.00850	2.75	-0.17		
45-74, MULTIVARIATE	0.00810	-0.00361	0.00319	0.00848	2.54	-0.43		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.85 FOR MEN, 1.33 FOR WOMEN.

TABLE 4-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
065-099	1188	0	0	6.0	848	2	24	11.6	320	0	0	6.3	8	7.4	7.3
100-104	844	0	0	6.7	538	0	0	11.4	194	0	0	7.7	0	8.1	8.0
105-109	1248	1	8	7.5	776	0	0	11.2	292	0	0	9.5	4	8.9	8.8
110-114	1458	1	7	8.5	1144	1	9	10.9	358	1	28	11.7	10	9.8	9.7
115-119	1704	1	6	9.5	1302	3	23	10.7	410	1	24	14.4	15	10.8	10.7
120-124	1862	4	21	10.7	1360	1	7	10.5	422	0	0	17.6	14	11.8	11.8
125-129	1528	1	7	12.1	1050	1	10	10.3	320	1	31	21.7	10	13.0	13.0
130-134	1302	4	31	13.6	928	0	0	10.1	326	2	61	26.6	23	14.3	14.4
135-139	762	1	13	15.2	538	1	19	9.9	178	0	0	32.7	14	15.7	15.8
140-272	1616	2	12	17.1	930	1	11	9.7	280	1	36	40.1	14	17.3	17.4
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
065-099	2062	0	0	1.3	1050	0	0	12.2	472	0	0	8.1	0	5.4	5.7
100-104	1556	0	0	1.5	842	0	0	12.3	306	0	0	8.4	0	5.8	6.1
105-109	1970	0	0	1.8	1256	3	24	12.5	348	0	0	8.8	8	6.2	6.4
110-114	2064	3	15	2.1	1302	3	23	12.6	430	1	23	9.2	18	6.6	6.8
115-119	1964	0	0	2.4	1454	2	14	12.7	522	0	0	9.6	5	7.0	7.2
120-124	1708	0	0	2.7	1484	1	7	12.9	490	1	20	10.1	5	7.5	7.6
125-129	1404	0	0	3.1	1198	1	8	13.0	436	1	23	10.5	7	8.0	8.0
130-134	1058	0	0	3.6	986	1	10	13.2	322	0	0	11.0	4	8.5	8.5
135-139	874	1	11	4.1	764	3	39	13.3	328	0	0	11.5	20	9.1	9.0
140-272	2796	2	7	4.8	2770	3	11	13.5	1074	2	19	12.0	11	9.7	9.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02352	0.02815	0.01482	0.01048	1.59	2.69	-9.02307	-10.96525
55-64	-0.00404	0.00220	0.02085	0.01053	-0.19	0.21	-5.66921	-6.22802
65-74	0.04130	0.00888	0.02337	0.01744	1.77	0.51	-10.70226	-7.29266
AVERAGE	0.01997	0.01426	0.01073	0.00684	1.86	2.09		
STANDARDIZED	0.31147	0.32017	0.17002	0.15149	1.83	2.11		
45-74, UNIVARIATE	0.01900	0.01301	0.01076	0.00686	1.77	1.90	-8.37125	-8.09496
45-74, BIVARIATE	0.01950	0.01136	0.01079	0.00710	1.81	1.60		
45-74, MULTIVARIATE	0.01749	0.01154	0.01105	0.00771	1.58	1.50		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.22 FOR MEN, 3.16 FOR WOMEN.

TABLE 4-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
12-31	154	0	0	21.4	274	0	0	9.5	208	2	96	49.4	31	21.6	20.0
32-35	148	0	0	19.1	296	0	0	9.7	218	1	46	36.5	15	19.2	18.1
36-39	452	0	0	17.0	542	0	0	9.9	326	0	0	26.9	0	17.1	16.4
40-43	770	1	13	15.2	1018	0	0	10.2	506	0	0	19.9	4	15.2	14.8
44-47	1636	1	6	13.5	1558	6	39	10.4	544	1	18	14.7	21	13.5	13.3
48-51	1712	6	35	12.1	1494	1	7	10.6	492	0	0	10.8	19	12.0	12.1
52-55	2532	4	16	10.8	1646	1	6	10.9	396	1	25	8.0	13	10.7	10.9
56-59	2390	1	4	9.6	1254	0	0	11.2	236	1	42	5.9	5	9.5	9.8
60-63	1788	1	6	8.6	776	2	26	11.4	104	0	0	4.3	11	8.5	8.9
64-85	1924	1	5	7.6	530	0	0	11.7	56	0	0	3.2	4	7.5	8.0
UNKNOWN	8	0			28	0			14	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
04-19	82	0	0	10.9	256	0	0	16.0	260	0	0	6.8	0	15.3	8.1
20-23	194	0	0	8.8	378	0	0	15.2	282	0	0	7.6	0	13.3	8.0
24-27	390	0	0	7.1	834	1	12	14.5	562	0	0	8.6	6	11.6	8.0
28-31	972	2	21	5.7	1726	4	23	13.9	944	2	21	9.7	22	10.1	8.0
32-35	2156	0	0	4.6	2824	2	7	13.3	1144	2	17	10.9	7	8.8	8.0
36-39	3016	2	7	3.7	2760	6	22	12.7	800	0	0	12.2	12	7.6	7.9
40-43	4080	1	2	3.0	2318	3	13	12.1	458	0	0	13.8	6	6.7	7.9
44-47	3262	0	0	2.4	1258	1	8	11.5	200	1	50	15.5	4	5.8	7.9
48-51	2048	1	5	2.0	500	0	0	11.0	60	0	0	17.4	4	5.0	7.9
52-77	1238	0	0	1.6	238	0	0	10.5	18	0	0	19.6	0	4.4	7.9
UNKNOWN	18	0			14	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	-0.02866	-0.05334	0.02769	0.05203	-1.04	-1.03	-4.58985	-5.16961
55-64	0.00587	-0.01163	0.03499	0.03228	0.17	-0.36	-6.44387	-5.53461
65-74	-0.07631	0.02956	0.04373	0.06191	-1.75	0.48	-2.31850	-7.13240
AVERAGE	-0.02742	-0.01456	0.01945	0.02508	-1.41	-0.58		
STANDARDIZED	-0.24875	-0.10812	0.17615	0.18646	-1.41	-0.58		
45-74, UNIVARIATE	-0.02936	-0.03461	0.01826	0.02258	-1.61	-1.53	-4.56099	-5.16631
45-74, BIVARIATE	-0.02548	-0.00072	0.01947	0.02588	-1.31	-0.03		
45-74, MULTIVARIATE	-0.01917	0.00429	0.01950	0.02694	-0.98	0.16		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.16 FOR MEN, 1.07 FOR WOMEN.

TABLE 4-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
37-63	2118	1	5	6.6	1800	3	17	8.3	516	1	19	18.5	11	8.7	8.7
64-67	1306	1	8	7.5	980	2	20	8.9	364	2	55	18.8	19	9.4	9.4
68-71	1824	2	11	8.5	1288	0	0	9.6	472	1	21	19.0	8	10.3	10.3
72-75	2572	1	4	9.7	1756	0	0	10.2	606	0	0	19.3	2	11.2	11.2
76-79	736	2	27	11.0	446	0	0	11.0	118	0	0	19.5	15	12.2	12.2
80-83	1628	1	6	12.5	1078	1	9	11.7	344	0	0	19.8	7	13.2	13.2
84-87	972	3	31	14.1	620	1	16	12.6	188	0	0	20.1	22	14.4	14.4
88-91	960	1	10	16.0	534	0	0	13.5	168	1	60	20.3	12	15.6	15.6
92-95	498	0	0	18.2	342	0	0	14.4	114	0	0	20.6	0	17.0	17.0
96-170	900	3	33	20.6	572	3	52	15.4	210	1	48	20.9	42	18.5	18.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
37-63	1744	0	0	5.5	1564	2	13	10.9	480	0	0	6.8	5	7.2	7.5
64-67	1548	2	13	4.8	1008	2	20	11.4	328	0	0	7.4	14	7.4	7.6
68-71	2294	1	4	4.2	1624	1	6	11.8	570	2	35	8.1	9	7.6	7.7
72-75	3474	1	3	3.6	2530	3	12	12.3	758	0	0	8.9	6	7.7	7.8
76-79	980	1	10	3.2	798	1	13	12.9	218	0	0	9.8	10	7.9	7.9
80-83	2300	0	0	2.8	1742	1	6	13.4	748	0	0	10.7	2	8.1	8.0
84-87	1568	1	6	2.4	1044	0	0	14.0	438	0	0	11.7	3	8.3	8.2
88-91	1252	0	0	2.1	976	3	31	14.6	398	1	25	12.9	15	8.5	8.3
92-95	778	0	0	1.8	636	3	47	15.2	256	0	0	14.1	18	8.7	8.4
96-170	1518	0	0	1.6	1184	1	8	15.8	534	2	37	15.4	9	8.9	8.5
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.03164	-0.03423	0.01854	0.03756	1.71	-0.91	-8.58670	-4.69666
55-64	0.01714	0.01034	0.02208	0.01781	0.78	0.58	-7.45782	-6.76653
65-74	0.00338	0.02288	0.03031	0.03159	0.11	0.72	-5.80450	-8.01929
AVERAGE	0.02164	0.00643	0.01286	0.01434	1.68	0.45		
STANDARDIZED	0.27954	0.07844	0.16437	0.18314	1.70	0.43		
45-74, UNIVARIATE	0.02104	0.00571	0.01271	0.01460	1.66	0.39	-7.65870	-6.89312
45-74, BIVARIATE	0.02107	0.00357	0.01254	0.01454	1.68	0.25		
45-74, MULTIVARIATE	0.01179	0.00042	0.01342	0.01500	0.88	0.03		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.70 FOR MEN, 1.49 FOR WOMEN.

TABLE 4-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NONE	5114	5	10	8.6	4570	4	9	9.3	1868	3	16	15.8	10	10.1	9.5
UNDER 20	1912	2	10	10.3	1482	2	13	10.5	544	1	18	20.1	13	11.6	11.4
20	3124	2	6	12.2	1832	2	11	11.9	368	1	27	25.6	9	13.3	13.6
OVER 20	3296	6	18	14.6	1490	2	13	13.6	310	1	32	32.5	18	15.3	16.3
UNKNOWN	68	0			42	0			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NONE	9812	3	3	3.5	9212	9	10	11.3	3778	4	11	11.2	7	7.8	7.1
UNDER 20	4096	2	5	3.4	2264	6	27	14.6	626	1	16	8.9	13	8.1	8.6
20	2454	1	4	3.3	1080	1	9	18.8	220	0	0	7.0	5	8.3	10.4
OVER 20	1026	0	0	3.2	502	1	20	24.2	82	0	0	5.5	6	8.5	12.6
UNKNOWN	68	0			48	0			22	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.17443	-0.03382	0.21331	0.45111	0.82	-0.07	-6.35958	-7.25492
55-64	0.12764	0.25268	0.26656	0.25686	0.48	0.98	-6.28972	-6.08590
65-74	0.24099	-0.23646	0.35606	0.85172	0.68	-0.28	-5.75231	-6.09583
AVERAGE	0.17139	0.15561	0.15086	0.21592	1.14	0.72		
STANDARDIZED	0.19869	0.12435	0.17378	0.17467	1.14	0.71		
45-74, UNIVARIATE	0.13934	0.02901	0.14785	0.21660	0.94	0.13	-6.20743	-6.45675
45-74, BIVARIATE	0.17992	0.19360	0.15134	0.21788	1.19	0.89		
45-74, MULTIVARIATE	0.18964	0.21825	0.15313	0.21884	1.24	1.00		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.07 FOR MEN, 0.53 FOR WOMEN.

TABLE 4-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	7100	6	8	7.7	4330	3	7	6.5	1214	1	8	10.9	8	7.7	7.8
BORDER	4116	4	10	12.3	3028	3	10	11.0	1212	3	25	19.4	12	12.7	12.8
DEFINITE	2298	5	22	19.5	2058	4	19	18.6	674	2	30	34.5	22	21.2	20.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	9876	3	3	3.1	4886	4	8	9.1	1136	1	9	8.9	5	5.5	6.7
BORDER	4980	2	4	3.6	4696	7	15	12.9	1908	2	10	10.3	9	8.3	8.2
DEFINITE	2600	1	4	4.2	3524	6	17	18.3	1684	2	12	12.0	12	12.4	10.1
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.46440	0.14796	0.31848	0.53291	1.46	0.28	-6.47268	-7.37422
55-64	0.52443	0.34950	0.39093	0.30630	1.34	1.14	-6.63865	-6.30369
65-74	0.57790	0.14654	0.53713	0.59523	1.08	0.25	-6.12566	-6.32626
AVERAGE	0.50397	0.27407	0.22434	0.24252	2.25	1.13		
STANDARDIZED	0.38571	0.21033	0.17187	0.18818	2.24	1.12		
45-74, UNIVARIATE	0.51143	0.41053	0.22218	0.23336	2.30	1.76	-6.48078	-6.81459
45-74, BIVARIATE	0.49336	0.21090	0.22356	0.24525	2.21	0.86		
45-74, MULTIVARIATE	0.43935	0.15708	0.23045	0.25212	1.91	0.62		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.04 FOR MEN, 0.16 FOR WOMEN.

TABLE 4-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	11428	11	10	9.9	7252	9	12	11.9	2068	2	10	12.0	11	10.7	10.9
POSSIBLE	1002	2	20	14.5	992	0	0	7.9	448	2	45	22.7	16	14.1	13.8
DEFINITE	1076	2	19	21.2	1170	1	9	5.2	584	2	34	42.7	18	18.6	17.5
UNKNOWN	8	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	14118	4	3	2.9	8342	9	11	11.5	2264	3	13	13.6	6	6.9	7.8
POSSIBLE	1580	1	6	4.4	2068	4	19	13.9	884	1	11	9.6	13	8.9	8.1
DEFINITE	1746	1	6	6.6	2688	4	15	17.0	1580	1	6	6.8	10	11.6	8.5
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.38242	0.40438	0.35088	0.51300	1.09	0.79	-6.22602	-7.43788
55-64	-0.41230	0.19659	0.59592	0.28162	-0.69	0.70	-6.04061	-6.07618
65-74	0.63530	-0.34630	0.44919	0.54685	1.41	-0.63	-6.02583	-5.90570
AVERAGE	0.32047	0.14465	0.25083	0.22500	1.28	0.64		
STANDARDIZED	0.20196	0.12716	0.16263	0.17463	1.24	0.73		
45-74, UNIVARIATE	0.27649	0.26271	0.23464	0.22171	1.18	1.18	-6.14153	-6.58913
45-74, BIVARIATE	0.23802	0.04570	0.23894	0.23272	1.00	0.20		
45-74, MULTIVARIATE	0.23989	-0.03627	0.25250	0.24735	0.95	-0.15		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.03 FOR MEN, 1.10 FOR WOMEN.

TABLE 4-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	13074	14	11	11.0	8820	8	9	9.9	2896	6	21	******	11	11.7	11.7
POSSIBLE	254	1	39	13.8	358	2	56	17.0	82	0	0	******	43	14.6	14.0
DEFINITE	186	0	0	17.4	238	0	0	29.2	122	0	0	******	0	18.2	16.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	17144	6	3	******	12444	15	12	12.1	4394	4	9	9.9	7	7.5	7.7
POSSIBLE	200	0	0	******	382	1	26	21.7	174	1	57	15.1	26	14.1	12.0
DEFINITE	112	0	0	******	280	1	36	38.8	160	0	0	23.0	18	26.6	18.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.23313	*******	0.79632	*******	0.29	****	-6.12107	********
55-64	0.54551	0.58398	0.57961	0.46574	0.94	1.25	-6.22680	-6.01968
65-74	*******	0.42116	*******	0.80836	****	0.52	********	-6.21847
AVERAGE	0.43733	0.54340	0.46862	0.40355	0.93	1.35		
STANDARDIZED	0.13108	0.18878	0.14964	0.13920	0.88	1.36		
45-74, UNIVARIATE	0.22174	0.63464	0.46220	0.39742	0.48	1.60	-6.05563	-6.50158
45-74, BIVARIATE	0.17849	0.44596	0.46423	0.40371	0.38	1.10		
45-74, MULTIVARIATE	0.00384	0.40008	0.49530	0.43509	0.01	0.92		

CHI SQUARE (1 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.10 FOR MEN, 0.03 FOR WOMEN.

TABLE 4-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	13370	13	10	9.7	9202	10	11	10.9	2946	6	20	20.4	11	11.4	11.4
YES	144	2	139	138.9	214	0	0	0.0	154	0	0	0.0	39	39.1	35.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	17358	6	3	3.5	12898	16	12	12.4	4660	4	9	8.6	7	7.4	7.6
YES	98	0	0	0.0	208	1	48	48.1	68	1	147	147.1	53	53.5	43.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	2.68538	********	0.76900	*******	3.49	*****	-6.24073	********
55-64	********	1.36188	*******	1.03555	*****	1.32	********	-5.99661
65-74	********	2.86910	*******	1.13169	*****	2.54	********	-6.36561
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.24023	1.98076	0.73382	0.73751	1.69	2.69	-6.08442	-6.50797
45-74, BIVARIATE	1.13039	1.75504	0.74350	0.74060	1.52	2.37		
45-74, MULTIVARIATE	1.12024	1.71690	0.74743	0.74931	1.50	2.29		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

TABLE 4-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	12910	13	10	10.1	8812	9	10	10.2	2816	2	7	7.1	10	9.8	9.9
YES	604	2	33	33.1	604	1	17	16.6	284	4	141	140.8	47	46.9	45.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	16838	6	4	3.6	12282	16	13	13.0	4298	4	9	9.3	8	7.8	7.9
YES	618	0	0	0.0	824	1	12	12.1	430	1	23	23.3	11	10.7	8.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.19501	********	0.76185	*******	1.57	*****	-6.20564	********
55-64	0.48434	-0.07105	1.05577	1.03203	0.46	-0.07	-6.19145	-5.94755
65-74	3.01440	0.91862	0.87061	1.12033	3.46	0.82	-6.55536	-6.28460
AVERAGE	1.64250	*******	0.50383	*******	3.26	****		
STANDARDIZED	0.35875	*******	0.11857	*******	3.03	****		
45-74, UNIVARIATE	1.57543	0.31772	0.43123	0.73457	3.65	0.43	-6.23482	-6.46405
45-74, BIVARIATE	1.52832	0.05093	0.43568	0.73878	3.51	0.07		
45-74, MULTIVARIATE	1.25614	-0.03649	0.45149	0.74041	2.78	-0.05		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.03 FOR MEN.

TABLE 4-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	13260	14	11	10.6	9054	10	11	11.0	2956	5	17	16.9	11	11.5	11.5
YES	212	1	47	47.2	328	0	0	0.0	136	1	74	73.5	30	29.6	27.4
UNKNOWN	42	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	16852	6	4	3.6	12716	17	13	13.4	4574	5	11	10.9	8	8.2	*****
YES	562	0	0	0.0	350	0	0	0.0	138	0	0	0.0	0	0.0	*****
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.50423	********	1.03976	*******	1.45	*****	-6.15819	********
55-64	********	********	*******	*******	*****	*****	********	********
65-74	1.48093	********	1.10254	*******	1.34	*****	-5.68562	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	0.95067	********	0.73317	*******	1.30	*****	-6.07463	********
45-74, BIVARIATE	0.86952	********	0.73758	*******	1.18	*****		
45-74, MULTIVARIATE	0.50684	********	0.75697	*******	0.67	*****		

TABLE 4-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	13152	15	11	11.4	9080	9	10	9.9	2954	4	14	13.5	11	11.1	11.2
YES	324	0	0	0.0	302	1	33	33.1	138	2	145	144.9	39	39.3	37.6
UNKNOWN	38	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	17228	6	3	3.5	12844	17	13	13.2	4626	5	11	10.8	8	8.1	*****
YES	188	0	0	0.0	226	0	0	0.0	86	0	0	0.0	0	0.0	*****
UNKNOWN	40	0			36	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	********	********	*******	*******	*****	*****	********	********
55-64	1.21084	********	1.05735	*******	1.15	*****	-6.22147	********
65-74	2.39722	********	0.87499	*******	2.74	*****	-5.90876	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.26754	********	0.60973	*******	2.08	*****	-6.10647	********
45-74, BIVARIATE	1.21996	********	0.61171	*******	1.99	*****		
45-74, MULTIVARIATE	1.18354	********	0.61660	*******	1.92	*****		

TABLE 4-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	13116	14	11	10.7	8954	10	11	11.2	2888	3	10	10.4	11	10.8	10.9
YES	398	1	25	25.1	462	0	0	0.0	212	3	142	141.5	37	37.3	35.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	17128	5	3	2.9	12630	17	13	13.5	4430	5	11	11.3	8	7.9	8.0
YES	328	1	30	30.5	476	0	0	0.0	298	0	0	0.0	9	9.1	6.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.85898	2.35155	1.03761	1.09829	0.83	2.14	-6.14725	-7.44530
55-64	*******	*******	*******	*******	****	****	********	********
65-74	2.63836	*******	0.82284	*******	3.21	****	-6.17448	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.24345	0.13915	0.53758	1.01927	2.31	0.14	-6.13380	-6.44907
45-74, BIVARIATE	1.18293	-0.18714	0.54166	1.02349	2.18	-0.18		
45-74, MULTIVARIATE	1.22562	-0.71123	0.55045	1.13737	2.23	-0.63		

TABLE 4-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY INSUFFICIENCY
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	15	11		9416	10	11		3100	6	19		12		
NO	12736	14	11	11.0	8672	9	10	10.4	2774	3	11	10.8	11	10.8	10.8
YES	778	1	13	12.9	744	1	13	13.4	326	3	92	92.0	27	27.1	26.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	6	3		13106	17	13		4728	5	11		8		
NO	16886	5	3	3.0	12300	17	14	13.8	4280	5	12	11.7	8	8.1	8.1
YES	570	1	18	17.5	806	0	0	0.0	448	0	0	0.0	5	5.5	4.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.15678	1.78209	1.03642	1.09711	0.15	1.62	-6.11778	-7.43106
55-64	0.25920	********	1.05548	*******	0.25	*****	-6.17540	********
65-74	2.15756	********	0.82076	*******	2.63	*****	-6.13412	********
AVERAGE	1.08101	********	0.54940	*******	1.97	*****		
STANDARDIZED	0.26355	********	0.14865	*******	1.77	*****		
45-74, UNIVARIATE	0.92612	-0.38686	0.48952	1.01892	1.89	-0.38	-6.13997	-6.42769
45-74, BIVARIATE	0.87815	-0.68232	0.49215	1.02239	1.78	-0.67		
45-74, MULTIVARIATE	0.85490	-1.09277	0.49537	1.11603	1.73	-0.98		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.12 FOR MEN.

TABLE 5-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
074-109	826	2	24	17.4	542	2	37	38.4	144	0	0	87.9	26	28.0	30.4
110-119	2272	2	9	20.3	1144	4	35	45.5	284	5	176	75.4	30	32.5	34.6
120-129	2950	8	27	23.6	1750	9	51	53.9	420	3	71	64.7	39	37.8	39.4
130-139	2954	8	27	27.4	1776	11	62	63.8	562	1	18	55.5	38	43.9	44.8
140-149	1944	6	31	31.9	1428	8	56	75.6	530	2	38	47.6	41	50.9	50.9
150-159	1166	6	51	37.1	1004	10	100	89.5	422	2	47	40.8	69	59.1	57.9
160-169	640	3	47	43.2	642	8	125	105.8	280	2	71	35.0	83	68.6	65.9
170-179	334	1	30	50.2	464	10	216	125.1	152	0	0	30.0	116	79.6	74.8
180-189	224	1	45	58.3	268	3	112	147.7	112	0	0	25.7	66	92.3	85.0
190-300	204	1	49	67.8	398	6	151	174.4	194	1	52	22.0	101	107.0	96.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
074-109	1578	1	6	6.4	518	1	19	22.3	100	0	0	31.3	9	13.9	16.0
110-119	3042	3	10	8.1	1242	0	0	27.2	266	0	0	36.0	7	17.4	19.6
120-129	3462	4	12	10.4	1810	8	44	33.1	382	1	26	41.4	23	21.8	23.9
130-139	3442	2	6	13.2	2262	8	35	40.3	674	5	74	47.6	24	27.3	29.1
140-149	2134	3	14	16.9	1932	11	57	49.0	774	5	65	54.6	39	34.2	35.5
150-159	1516	3	20	21.5	1728	10	58	59.6	716	6	84	62.7	48	42.8	43.3
160-169	874	3	34	27.5	1256	8	64	72.5	574	1	17	72.0	44	53.5	52.8
170-179	562	3	53	35.0	870	13	149	88.2	470	1	21	82.7	89	66.8	64.3
180-189	410	3	73	44.6	630	2	32	107.1	302	5	166	94.9	75	83.5	78.3
190-300	436	3	69	56.8	858	15	175	130.0	470	7	149	108.8	142	104.2	95.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	WOMEN	STANDARD ERROR MEN	WOMEN	T-VALUE MEN	WOMEN	INTERCEPT OF FUNCTION MEN	WOMEN
45-54	0.01522	0.02444	0.00703	0.00486	2.17	5.03	-7.25524	-9.23193
55-64	0.01712	0.01983	0.00411	0.00340	4.17	5.83	-6.65948	-7.49094
65-74	-0.01553	0.01401	0.01145	0.00623	-1.36	2.25	-2.39354	-6.53682
AVERAGE	0.01382	0.02012	0.00339	0.00255	4.08	7.91		
STANDARDIZED	0.31938	0.51303	0.07731	0.06454	4.13	7.95		
45-74, UNIVARIATE	0.01508	0.02257	0.00333	0.00241	4.54	9.37	-6.76383	-8.25198
45-74, BIVARIATE	0.01301	0.02000	0.00341	0.00261	3.81	7.67		
45-74, MULTIVARIATE	0.01132	0.01665	0.00378	0.00300	2.99	5.56		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 7.25 FOR MEN, 1.76 FOR WOMEN.

TABLE 5-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
020-069	832	2	24	18.1	734	4	54	45.1	354	0	0	47.4	31	30.9	30.6
070-074	1688	5	30	20.3	1304	7	54	51.4	520	6	115	48.7	51	34.7	34.5
075-079	1368	3	22	22.8	976	8	82	58.6	322	1	31	50.1	45	39.0	38.8
080-084	3320	7	21	25.6	2146	9	42	66.8	702	4	57	51.5	32	43.8	43.7
085-089	1814	2	11	28.7	1014	4	39	76.1	332	0	0	52.9	19	49.2	49.2
090-094	1896	6	32	32.2	1334	14	105	86.7	402	2	50	54.3	61	55.2	55.3
095-099	902	4	44	36.2	598	6	100	98.8	138	1	72	55.8	67	62.0	62.2
100-104	942	4	42	40.6	658	11	167	112.5	160	1	63	57.4	91	69.6	70.0
105-109	282	2	71	45.5	172	1	58	128.0	34	0	0	59.0	61	78.1	78.7
110-160	470	3	64	51.1	480	7	146	145.7	136	1	74	60.6	101	87.6	88.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
020-069	1600	3	19	6.8	880	5	57	32.8	402	2	50	53.9	35	20.9	21.9
070-074	2810	1	4	8.5	1678	9	54	37.7	588	5	85	56.9	30	24.4	25.3
075-079	1978	2	10	10.5	1220	7	57	43.3	424	3	71	60.0	33	28.5	29.2
080-084	4108	3	7	13.1	2890	11	38	49.7	1100	5	45	63.2	23	33.2	33.8
085-089	2074	2	10	16.2	1584	6	38	57.0	490	2	41	66.7	24	38.8	39.0
090-094	2216	6	27	20.1	2042	13	64	65.5	758	6	79	70.3	50	45.2	44.9
095-099	848	2	24	25.0	834	2	24	75.1	320	2	63	74.2	30	52.6	51.8
100-104	852	4	47	31.0	972	9	93	86.1	346	2	58	78.2	69	61.3	59.8
105-109	272	0	0	38.5	290	4	138	98.8	68	1	147	82.5	79	71.5	68.9
110-160	698	5	72	47.7	716	10	140	113.2	232	3	129	87.0	109	83.2	79.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02318	0.04335	0.01275	0.01114	1.82	3.89	-7.18117	-9.52031
55-64	0.02652	0.02788	0.00832	0.00788	3.19	3.54	-6.48987	-6.90169
65-74	0.00550	0.01078	0.01850	0.01350	0.30	0.80	-5.02016	-5.24646
AVERAGE	0.02304	0.02892	0.00652	0.00581	3.53	4.98		
STANDARDIZED	0.29113	0.37299	0.08224	0.07466	3.54	5.00		
45-74, UNIVARIATE	0.02341	0.03093	0.00662	0.00572	3.54	5.41	-6.65979	-7.55870
45-74, BIVARIATE	0.02387	0.02889	0.00648	0.00587	3.69	4.92		
45-74, MULTIVARIATE	0.02261	0.02130	0.00693	0.00635	3.26	3.35		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.07 FOR MEN, 3.50 FOR WOMEN.

TABLE 5-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
096-189	1564	0	0	16.8	1152	7	61	56.4	406	1	25	47.9	26	34.7	34.2
190-204	1346	1	7	19.0	992	3	30	60.6	382	1	26	49.1	18	37.7	37.2
205-219	1962	4	20	21.4	1212	10	83	65.0	404	6	149	50.2	56	40.8	40.5
220-234	1996	11	55	24.1	1464	10	68	69.7	478	2	42	51.4	58	44.3	44.1
235-249	1670	6	36	27.2	1294	8	62	74.8	370	0	0	52.7	42	48.0	48.0
250-264	1484	4	27	30.6	1154	10	87	80.3	350	3	86	53.9	57	52.0	52.2
265-279	1060	2	19	34.5	764	9	118	86.1	268	1	37	55.2	57	56.4	56.8
280-294	720	0	0	38.9	480	3	63	92.4	230	0	0	56.5	21	61.1	61.8
295-309	418	2	48	43.8	312	4	128	99.1	90	1	111	57.8	85	66.2	67.2
310-1124	602	5	83	49.4	338	3	89	106.2	102	1	98	59.2	86	71.7	73.1
UNKNOWN	692	3			254	4			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
096-189	1708	2	12	13.7	554	3	54	37.3	154	0	0	27.3	21	23.6	25.6
190-204	1656	2	12	13.7	702	3	43	40.1	206	1	49	31.7	23	25.7	27.5
205-219	2026	5	25	13.8	1030	4	39	43.1	352	0	0	36.7	26	28.0	29.6
220-234	2418	1	4	13.9	1582	8	51	46.2	526	5	95	42.5	31	30.6	31.8
235-249	2174	5	23	14.0	1558	7	45	49.6	604	3	50	49.2	35	33.3	34.1
250-264	1826	2	11	14.0	1702	6	35	53.3	632	4	63	56.9	29	36.4	36.7
265-279	1522	1	7	14.1	1608	7	44	57.2	664	4	60	65.9	32	39.7	39.4
280-294	1130	2	18	14.2	1298	9	69	61.4	476	1	21	76.2	41	43.2	42.3
295-309	734	1	14	14.3	940	8	85	65.9	350	4	114	88.1	64	47.2	45.5
310-1124	1292	2	15	14.3	1698	15	88	70.8	708	9	127	101.9	70	51.4	48.8
UNKNOWN	970	5			434	6			56	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.00801	0.00036	0.00293	0.00446	2.73	0.08	-7.15182	-5.96562
55-64	0.00476	0.00479	0.00286	0.00245	1.67	1.95	-5.34167	-5.76301
65-74	0.00158	0.00986	0.00616	0.00373	0.26	2.64	-4.92555	-7.00375
AVERAGE	0.00587	0.00527	0.00194	0.00186	3.02	2.83		
STANDARDIZED	0.24026	0.24260	0.08025	0.08500	2.99	2.85		
45-74, UNIVARIATE	0.00543	0.00582	0.00198	0.00142	2.75	4.11	-5.95257	-6.41506
45-74, BIVARIATE	0.00569	0.00482	0.00200	0.00157	2.84	3.07		
45-74, MULTIVARIATE	0.00525	0.00438	0.00201	0.00160	2.62	2.74		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.17 FOR MEN, 2.77 FOR WOMEN.

TABLE 5-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
062-179	1806	2	11	17.1	1180	5	42	69.0	148	1	68	34.9	26	38.0	39.0
180-199	852	2	23	18.8	594	6	101	70.0	74	0	0	37.8	53	39.8	40.7
200-219	1076	2	19	20.6	744	5	67	71.1	224	1	45	41.0	39	41.8	42.4
220-239	1342	2	15	22.7	992	11	111	72.2	280	1	36	44.5	54	43.8	44.1
240-259	1820	7	38	24.9	1386	7	51	73.3	630	5	79	48.3	50	45.9	46.0
260-279	1826	5	27	27.3	1452	11	76	74.4	592	1	17	52.3	44	48.1	47.9
280-299	1564	5	32	29.9	1158	11	95	75.5	460	2	43	56.8	57	50.4	49.9
300-319	1056	2	19	32.8	818	7	86	76.7	374	3	80	61.6	53	52.8	52.0
320-339	774	2	26	36.0	408	3	74	77.8	210	1	48	66.7	43	55.3	54.1
340-968	644	4	62	39.5	406	1	25	79.0	86	1	116	72.3	53	58.0	56.4
UNKNOWN	754	5			278	4			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
062-179	2134	2	9	13.5	1078	6	56	40.5	90	0	0	30.7	24	23.2	28.4
180-199	896	2	22	13.7	614	0	0	43.1	68	1	147	34.8	19	25.4	30.0
200-219	1608	2	12	13.8	992	6	60	45.8	202	0	0	39.3	29	27.8	31.6
220-239	1662	5	30	13.9	1020	4	39	48.6	250	1	40	44.5	34	30.5	33.3
240-259	2192	2	9	14.0	1378	8	58	51.6	500	4	80	50.3	34	33.4	35.1
260-279	2300	3	13	14.1	1770	7	40	54.9	734	4	54	56.9	29	36.6	37.0
280-299	1914	3	16	14.3	1760	9	51	58.3	804	3	37	64.3	33	40.1	39.0
300-319	1648	1	6	14.4	1676	13	78	61.9	886	7	79	72.7	50	43.9	41.1
320-339	1006	0	0	14.5	1100	8	73	65.8	548	6	109	82.2	53	48.1	43.4
340-968	1022	3	29	14.6	1242	9	72	69.8	576	5	87	92.9	60	52.7	45.7
UNKNOWN	1074	5			476	6			70	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00467	0.00043	0.00262	0.00339	1.78	0.13	-6.46581	-5.98255
55-64	0.00076	0.00306	0.00209	0.00206	0.37	1.48	-4.39958	-5.32619
65-74	0.00410	0.00622	0.00557	0.00381	0.73	1.63	-5.65445	-6.14276
AVERAGE	0.00242	0.00303	0.00157	0.00160	1.54	1.89		
STANDARDIZED	0.14049	0.18151	0.09179	0.09149	1.53	1.98		
45-74, UNIVARIATE	0.00237	0.00460	0.00155	0.00145	1.53	3.17	-5.27398	-6.15205
45-74, BIVARIATE	0.00207	0.00267	0.00160	0.00162	1.29	1.65		
45-74, MULTIVARIATE	-0.00100	0.00133	0.00189	0.00191	-0.53	0.70		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.45 FOR MEN, 1.28 FOR WOMEN.

TABLE 5-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
029-059	376	1	27	32.6	276	4	145	78.5	68	0	0	49.7	69	49.1	50.4
060-069	2412	7	29	30.5	1476	9	61	77.9	518	3	58	50.4	43	48.9	49.7
070-079	4350	15	34	28.6	2858	24	84	77.4	908	4	44	51.1	53	48.6	49.0
080-089	3162	3	9	26.7	2296	15	65	76.9	694	4	58	51.9	36	48.4	48.3
090-099	1474	8	54	25.0	1126	10	89	76.3	452	1	22	52.7	62	48.2	47.7
100-109	590	1	17	23.4	488	5	102	75.8	154	1	65	53.4	57	48.0	47.0
110-119	276	0	0	21.9	252	0	0	75.3	64	1	156	54.2	17	47.7	46.4
120-129	116	0	0	20.5	138	1	72	74.7	58	2	345	55.0	96	47.5	45.7
130-139	72	1	139	19.2	70	0	0	74.2	52	0	0	55.8	52	47.3	45.1
140-524	254	0	0	17.9	252	3	119	73.7	106	0	0	56.7	49	47.1	44.5
UNKNOWN	432	2			184	0			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
029-059	348	0	0	8.8	274	1	36	47.8	72	1	139	88.1	29	29.6	31.2
060-069	2976	3	10	10.3	1698	16	94	49.9	556	5	90	79.8	46	31.7	32.9
070-079	5838	8	14	12.0	4058	14	34	52.1	1462	8	55	72.3	26	33.9	34.7
080-089	4418	7	16	13.9	3580	22	61	54.4	1242	7	56	65.5	39	36.4	36.5
090-099	1814	2	11	16.2	1606	8	50	56.8	626	7	112	59.4	42	39.0	38.5
100-109	696	0	0	18.8	718	0	0	59.3	326	3	92	53.8	17	41.8	40.6
110-119	334	2	60	21.9	298	2	67	61.9	124	0	0	48.7	53	44.8	42.8
120-129	116	0	0	25.5	222	2	90	64.6	110	0	0	44.1	45	47.9	45.1
130-139	50	0	0	29.6	66	1	152	67.5	40	0	0	40.0	64	51.4	47.5
140-524	188	2	106	34.4	286	4	140	70.4	124	0	0	36.2	100	55.0	50.1
UNKNOWN	678	4			300	6			46	0					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	WOMEN	STANDARD ERROR MEN	WOMEN	T-VALUE MEN	WOMEN	INTERCEPT OF FUNCTION MEN	WOMEN
45-54	-0.00669	0.01516	0.00984	0.00370	-0.68	4.10	-4.65735	-7.16932
55-64	-0.00071	0.00436	0.00474	0.00346	-0.15	1.26	-4.09930	-4.88051
65-74	0.00148	-0.01000	0.00744	0.01053	0.20	-0.95	-4.68313	-3.47179
AVERAGE	-0.00101	0.00834	0.00370	0.00246	-0.27	3.40		
STANDARDIZED	-0.03160	0.19866	0.09858	0.05376	-0.32	3.70		
45-74, UNIVARIATE	-0.00048	0.00696	0.00367	0.00242	-0.13	2.88	-4.58711	-5.50777
45-74, BIVARIATE	-0.00139	0.00531	0.00376	0.00257	-0.37	2.06		
45-74, MULTIVARIATE	-0.00186	0.00148	0.00378	0.00281	-0.49	0.53		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.45 FOR MEN, 7.76 FOR WOMEN.

TABLE 5-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
065-099	1188	2	17	18.2	848	2	24	53.0	320	1	31	38.1	21	33.8	33.1
100-104	844	0	0	19.8	538	5	93	57.0	194	0	0	40.7	32	36.3	35.7
105-109	1248	4	32	21.6	776	5	64	61.3	292	3	103	43.4	52	39.0	38.5
110-114	1458	4	27	23.5	1144	6	52	65.9	358	0	0	46.3	34	41.9	41.5
115-119	1704	4	23	25.6	1302	8	61	70.8	410	3	73	49.4	44	44.9	44.7
120-124	1862	4	21	27.9	1360	12	88	76.1	422	2	47	52.7	49	48.3	48.2
125-129	1528	6	39	30.3	1050	7	67	81.9	320	1	31	56.2	48	51.8	51.9
130-134	1302	6	46	33.0	928	11	119	88.0	326	3	92	59.9	78	55.6	56.0
135-139	762	1	13	36.0	538	6	112	94.6	178	0	0	63.9	47	59.7	60.3
140-272	1616	7	43	39.1	930	9	97	101.6	280	3	107	68.2	67	64.1	65.0
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
065-099	2062	3	15	9.4	1050	4	38	37.2	472	3	64	71.5	28	25.7	26.9
100-104	1556	2	13	10.3	842	3	36	39.9	306	2	65	70.3	26	27.5	28.6
105-109	1970	1	5	11.3	1256	8	64	42.8	348	4	115	69.2	36	29.4	30.4
110-114	2064	0	0	12.4	1302	2	15	46.0	430	3	70	68.1	13	31.5	32.3
115-119	1964	5	25	13.6	1454	4	28	49.3	522	1	19	67.1	25	33.7	34.3
120-124	1708	3	18	14.9	1484	7	47	52.9	490	2	41	66.0	33	36.0	36.4
125-129	1404	2	14	16.3	1198	5	42	56.7	436	5	115	65.0	39	38.5	38.7
130-134	1058	1	9	17.9	986	10	101	60.8	322	0	0	63.9	46	41.2	41.1
135-139	874	2	23	19.6	764	10	131	65.2	328	3	91	62.9	76	44.1	43.7
140-272	2796	9	32	21.5	2770	23	83	69.9	1074	8	74	61.9	60	47.1	46.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.01711	0.01852	0.00958	0.00614	1.79	3.02	-7.28071	-8.08344
55-64	0.01470	0.01414	0.00755	0.00415	1.95	3.41	-5.97003	-6.27101
65-74	0.01304	-0.00322	0.01539	0.00814	0.85	-0.40	-6.14010	-3.91963
AVERAGE	0.01529	0.01268	0.00553	0.00317	2.76	4.01		
STANDARDIZED	0.23875	0.28471	0.08653	0.07046	2.76	4.04		
45-74, UNIVARIATE	0.01435	0.01355	0.00548	0.00313	2.62	4.34	-6.38864	-6.58604
45-74, BIVARIATE	0.01512	0.01216	0.00550	0.00322	2.75	3.77		
45-74, MULTIVARIATE	0.01434	0.00325	0.00581	0.00376	2.47	0.87		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.06 FOR MEN, 4.84 FOR WOMEN.

TABLE 5-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
12-31	154	0	0	33.1	274	2	73	87.2	208	2	96	76.2	63	71.4	57.4
32-35	148	1	68	32.1	296	3	101	84.7	218	1	46	68.4	76	66.1	55.5
36-39	452	1	22	31.1	542	2	37	82.3	326	1	31	61.5	30	61.1	53.6
40-43	770	3	39	30.1	1018	9	88	79.9	506	5	99	55.3	74	56.6	51.7
44-47	1636	6	37	29.1	1558	10	64	77.6	544	3	55	49.6	51	52.3	49.9
48-51	1712	7	41	28.2	1494	12	80	75.4	492	0	0	44.6	51	48.4	48.2
52-55	2532	5	20	27.4	1646	18	109	73.3	396	2	51	40.1	55	44.7	46.6
56-59	2390	5	21	26.5	1254	11	88	71.1	236	2	85	36.0	46	41.4	45.0
60-63	1788	3	17	25.7	776	2	26	69.1	104	0	0	32.3	19	38.3	43.4
64-85	1924	6	31	24.9	530	2	38	67.1	56	0	0	29.0	32	35.4	41.9
UNKNOWN	8	1			28	0			14	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
04-19	82	0	0	75.6	256	4	156	105.3	260	1	38	90.2	84	111.7	80.1
20-23	194	2	103	56.4	378	1	26	91.7	282	3	106	82.1	70	88.2	68.4
24-27	390	1	26	42.0	834	7	84	79.8	562	8	142	74.8	90	69.6	58.5
28-31	972	2	21	31.2	1726	14	81	69.5	944	5	53	68.0	58	54.9	50.0
32-35	2156	4	19	23.2	2824	16	57	60.4	1144	7	61	61.9	44	43.3	42.7
36-39	3016	10	33	17.2	2760	15	54	52.5	800	2	25	56.4	41	34.1	36.4
40-43	4080	5	12	12.8	2318	12	52	45.7	458	3	66	51.3	29	26.8	31.1
44-47	3262	4	12	9.5	1258	4	32	39.7	200	1	50	46.7	19	21.1	26.5
48-51	2048	0	0	7.1	500	3	60	34.5	60	1	167	42.5	15	16.6	22.7
52-77	1238	0	0	5.2	238	0	0	30.0	18	0	0	38.6	0	13.1	19.3
UNKNOWN	18	0			14	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	-0.00799	-0.07454	0.01811	0.02350	-0.44	-3.17	-4.77155	-2.83423
55-64	-0.00739	-0.03532	0.01304	0.01495	-0.57	-2.36	-3.80931	-3.20287
65-74	-0.02707	-0.02385	0.02735	0.02389	-0.99	-1.00	-3.35685	-3.56786
AVERAGE	-0.01013	-0.04165	0.00987	0.01115	-1.03	-3.73		
STANDARDIZED	-0.09197	-0.30958	0.08956	0.08292	-1.03	-3.73		
45-74, UNIVARIATE	-0.01972	-0.06015	0.00928	0.01006	-2.13	-5.98	-3.64224	-2.69645
45-74, BIVARIATE	-0.00884	-0.03985	0.00998	0.01137	-0.89	-3.50		
45-74, MULTIVARIATE	-0.00644	-0.02855	0.01045	0.01239	-0.62	-2.30		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.44 FOR MEN, 2.69 FOR WOMEN.

TABLE 5-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
37-63	2118	6	28	36.4	1800	11	61	71.8	516	3	58	35.8	45	48.7	48.3
64-67	1306	7	54	33.4	980	7	71	72.9	364	0	0	39.4	53	48.5	48.2
68-71	1824	4	22	30.7	1288	10	78	74.0	472	2	42	43.4	45	48.3	48.1
72-75	2572	7	27	28.2	1756	15	85	75.1	606	3	50	47.8	51	48.1	48.0
76-79	736	2	27	25.9	446	4	90	76.3	118	0	0	52.6	46	47.9	48.0
80-83	1628	9	55	23.8	1078	7	65	77.5	344	2	58	57.9	59	47.7	47.9
84-87	972	1	10	21.8	620	7	113	78.7	188	0	0	63.7	45	47.5	47.8
88-91	960	1	10	20.0	534	5	94	79.9	168	3	179	70.1	54	47.3	47.8
92-95	498	0	0	18.4	342	1	29	81.1	114	1	88	77.1	21	47.1	47.7
96-170	900	1	11	16.9	572	4	70	82.3	210	2	95	84.9	42	46.9	47.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
37-63	1744	3	17	13.1	1564	13	83	68.3	480	2	42	70.0	48	40.5	41.5
64-67	1548	4	26	13.7	1008	5	50	65.4	328	2	61	69.0	38	39.9	40.7
68-71	2294	3	13	14.4	1624	12	74	62.6	570	6	105	67.9	47	39.3	39.8
72-75	3474	4	12	15.1	2530	12	47	59.9	758	6	79	66.9	33	38.8	39.0
76-79	980	1	10	15.9	798	2	25	57.4	218	0	0	65.8	15	38.2	38.2
80-83	2300	3	13	16.7	1742	10	57	55.0	748	6	80	64.8	40	37.7	37.4
84-87	1568	4	26	17.5	1044	5	48	52.6	438	4	91	63.8	43	37.2	36.6
88-91	1252	1	8	18.3	976	8	82	50.4	398	0	0	62.9	34	36.6	35.9
92-95	778	1	13	19.2	636	4	63	48.2	256	1	39	61.9	36	36.1	35.1
96-170	1518	4	26	20.2	1184	5	42	46.2	534	4	75	61.0	40	35.6	34.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.02141	0.01204	0.01387	0.01460	-1.54	0.82	-3.58860	-6.68793
55-64	0.00388	-0.01098	0.00903	0.00949	0.43	-1.16	-4.46966	-3.59951
65-74	0.02423	-0.00391	0.01594	0.01407	1.52	-0.28	-6.43396	-4.01211
AVERAGE	0.00148	-0.00408	0.00684	0.00693	0.22	-0.59		
STANDARDIZED	0.01542	-0.05021	0.08819	0.08828	0.17	-0.57		
45-74, UNIVARIATE	-0.00104	-0.00358	0.00707	0.00696	-0.15	-0.51	-4.55760	-4.58636
45-74, BIVARIATE	-0.00037	-0.00525	0.00700	0.00693	-0.05	-0.76		
45-74, MULTIVARIATE	-0.00661	-0.01125	0.00748	0.00738	-0.88	-1.52		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.83 FOR MEN, 1.75 FOR WOMEN.

TABLE 5-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NONE	5114	14	27	25.6	4570	37	81	76.4	1868	9	48	40.2	52	48.3	45.2
UNDER 20	1912	4	21	27.5	1482	10	67	75.8	544	0	0	53.6	36	48.2	47.7
20	3124	9	29	29.5	1832	10	55	75.1	368	4	109	71.4	43	48.2	50.5
OVER 20	3296	11	33	31.7	1490	14	94	74.4	310	3	97	94.9	55	48.2	53.3
UNKNOWN	68	0			42	0			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NONE	9812	21	21	20.5	9212	61	66	65.4	3778	23	61	61.1	46	45.1	42.9
UNDER 20	4096	4	10	13.0	2264	9	40	47.5	626	4	64	76.7	24	31.1	33.9
20	2454	2	8	8.3	1080	5	46	34.5	220	4	182	96.2	29	21.5	26.7
OVER 20	1026	1	10	5.2	502	1	20	25.1	82	0	0	120.5	12	14.8	21.1
UNKNOWN	68	0			48	0			22	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.07132	-0.45530	0.13347	0.26792	0.53	-1.70	-5.26948	-5.49321
55-64	-0.00906	-0.32237	0.10447	0.18136	-0.09	-1.78	-4.16536	-4.32350
65-74	0.28999	0.23033	0.21547	0.24127	1.35	0.95	-4.81470	-4.39197
AVERAGE	0.05564	-0.19813	0.07686	0.12750	0.72	-1.55		
STANDARDIZED	0.06776	-0.12037	0.08834	0.09683	0.77	-1.24		
45-74, UNIVARIATE	-0.00071	-0.37359	0.07558	0.12900	-0.01	-2.90	-4.63041	-4.69942
45-74, BIVARIATE	0.05603	-0.23855	0.07739	0.12930	0.72	-1.84		
45-74, MULTIVARIATE	0.08831	-0.15520	0.07976	0.13353	1.11	-1.16		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.58 FOR MEN, 4.54 FOR WOMEN.

TABLE 5-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	7100	14	20	22.1	4330	19	44	47.6	1214	7	58	52.6	32	33.6	34.7
BORDER	4116	16	39	30.6	3028	27	89	78.6	1212	5	41	51.4	57	51.4	51.4
DEFINITE	2298	8	35	42.2	2058	25	121	129.3	674	4	59	50.2	74	78.5	75.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	9876	7	7	6.6	4886	13	27	31.6	1136	1	9	26.0	13	16.3	19.1
BORDER	4980	8	16	17.9	4696	31	66	55.7	1908	14	73	52.8	46	37.2	38.4
DEFINITE	2600	13	50	48.2	3524	32	91	97.7	1684	16	95	106.6	78	84.5	76.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.32542	0.99694	0.20284	0.23764	1.60	4.20	-5.41617	-6.62531
55-64	0.50803	0.57135	0.14763	0.14980	3.44	3.81	-4.64521	-5.05819
65-74	-0.02330	0.71303	0.33125	0.27219	-0.07	2.62	-4.54396	-5.25222
AVERAGE	0.39100	0.69605	0.11229	0.11488	3.48	6.06		
STANDARDIZED	0.30060	0.54275	0.08691	0.08891	3.46	6.10		
45-74, UNIVARIATE	0.42883	0.82887	0.11110	0.11229	3.86	7.38	-4.99532	-5.72170
45-74, BIVARIATE	0.39571	0.70141	0.11203	0.11675	3.53	6.01		
45-74, MULTIVARIATE	0.36466	0.57440	0.11892	0.12501	3.07	4.59		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.30 FOR MEN, 2.30 FOR WOMEN.

TABLE 5-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	11428	29	25	25.7	7252	52	72	72.4	2068	12	58	55.3	45	45.1	46.3
POSSIBLE	1002	4	40	32.4	992	9	91	80.6	448	1	22	47.9	57	52.9	50.5
DEFINITE	1076	4	37	40.7	1170	10	85	89.8	584	3	51	41.6	60	62.0	55.0
UNKNOWN	8	1			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	14118	20	14	13.3	8342	35	42	42.8	2264	13	57	51.1	28	27.1	30.6
POSSIBLE	1580	1	6	21.1	2068	15	73	65.4	884	3	34	66.3	42	46.1	44.6
DEFINITE	1746	7	40	33.4	2688	26	97	99.5	1580	15	95	85.9	80	78.2	65.0
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.23120	0.46096	0.24441	0.23233	0.95	1.98	-5.26523	-5.92384
55-64	0.10924	0.42695	0.16328	0.12856	0.67	3.32	-4.22046	-4.75100
65-74	-0.14389	0.26310	0.33882	0.20132	-0.42	1.31	-4.49413	-4.57302
AVERAGE	0.10664	0.39405	0.12603	0.09820	0.85	4.01		
STANDARDIZED	0.07750	0.31122	0.08393	0.07693	0.92	4.05		
45-74, UNIVARIATE	0.16094	0.53489	0.12523	0.09539	1.29	5.61	-4.69957	-5.21152
45-74, BIVARIATE	0.08635	0.38103	0.12766	0.10056	0.68	3.79		
45-74, MULTIVARIATE	0.05230	0.18437	0.13576	0.11185	0.39	1.65		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.81 FOR MEN, 0.57 FOR WOMEN.

TABLE 5-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	13074	35	27	26.7	8820	65	74	72.8	2896	16	55	******	47	46.5	46.8
POSSIBLE	254	1	39	51.5	358	2	56	99.4	82	0	0	******	43	66.5	62.6
DEFINITE	186	2	108	99.2	238	4	168	135.3	122	0	0	******	110	95.1	83.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	17144	25	15	14.6	12444	66	53	52.6	4394	27	61	60.6	35	34.5	35.5
POSSIBLE	200	1	50	51.3	382	3	79	110.2	174	1	57	100.1	66	84.7	74.8
DEFINITE	112	2	179	177.4	280	7	250	228.4	160	3	188	164.3	217	204.7	155.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.66455	1.26615	0.35597	0.35721	1.87	3.54	-5.22897	-5.83499
55-64	0.31636	0.75268	0.26116	0.20011	1.21	3.76	-4.21463	-4.54485
65-74	*******	0.50941	*******	0.31056	****	1.64	********	-4.40063
AVERAGE	0.43820	0.78746	0.21057	0.15219	2.08	5.17		
STANDARDIZED	0.14607	0.24042	0.06716	0.04442	2.17	5.41		
45-74, UNIVARIATE	0.36293	0.90746	0.20774	0.15112	1.75	6.00	-4.66912	-4.96878
45-74, BIVARIATE	0.29470	0.75344	0.20890	0.15407	1.41	4.89		
45-74, MULTIVARIATE	0.08228	0.39651	0.23221	0.17877	0.35	2.22		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.62 (1 DF) FOR MEN, 2.63 (2 DF) FOR WOMEN.

TABLE 5-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	13370	38	28	28.4	9202	68	74	73.9	2946	14	48	47.5	47	47.0	47.4
YES	144	0	0	0.0	214	3	140	140.2	154	2	130	129.9	98	97.7	80.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	17358	26	15	15.0	12898	72	56	55.8	4660	31	67	66.5	37	36.9	37.2
YES	98	2	204	204.1	208	4	192	192.3	68	0	0	0.0	160	160.4	132.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	********	2.65056	*******	0.74823	*****	3.54	********	-5.80756
55-64	0.65385	1.26491	0.59823	0.52349	1.09	2.42	-4.19963	-4.48379
65-74	1.02211	********	0.76515	*******	1.34	*****	-4.64645	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	0.74104	1.49359	0.46086	0.42427	1.61	3.52	-4.65705	-4.90032
45-74, BIVARIATE	0.54058	1.29571	0.46495	0.42654	1.16	3.04		
45-74, MULTIVARIATE	0.57159	0.84967	0.46729	0.51850	1.22	1.64		

TABLE 5-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	12910	35	27	27.1	8812	62	70	70.4	2816	15	53	53.3	46	45.6	46.1
YES	604	3	50	49.7	604	9	149	149.0	284	1	35	35.2	87	87.1	79.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	16838	27	16	16.0	12282	70	57	57.0	4298	26	60	60.5	37	36.8	37.5
YES	618	1	16	16.2	824	6	73	72.8	430	5	116	116.3	64	64.1	52.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.60999	0.00910	0.60449	1.02000	1.01	0.01	-5.21183	-5.73920
55-64	0.76647	0.24819	0.36178	0.42846	2.12	0.58	-4.24942	-4.46278
65-74	-0.41760	0.66482	1.03657	0.49365	-0.40	1.35	-4.53116	-4.40249
AVERAGE	0.63114	0.38897	0.29738	0.30843	2.12	1.26		
STANDARDIZED	0.15125	0.08874	0.07027	0.07665	2.15	1.16		
45-74, UNIVARIATE	0.65497	0.56032	0.29546	0.30431	2.22	1.84	-4.68716	-4.90413
45-74, BIVARIATE	0.55160	0.33548	0.29728	0.30688	1.86	1.09		
45-74, MULTIVARIATE	0.30088	0.22861	0.31297	0.31022	0.96	0.74		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.16 FOR MEN, 0.56 FOR WOMEN.

TABLE 5-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	13260	37	28	27.9	9054	70	77	77.3	2956	16	54	54.1	49	48.7	48.8
YES	212	1	47	47.2	328	1	30	30.5	136	0	0	0.0	30	29.6	25.7
UNKNOWN	42	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	16852	24	14	14.2	12716	71	56	55.8	4574	30	66	65.6	37	36.6	36.5
YES	562	4	71	71.2	350	5	143	142.9	138	1	72	72.5	95	95.2	100.0
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.52889	1.62045	1.01819	0.54350	0.52	2.98	-5.18285	-5.85817
55-64	-0.94001	0.95720	1.01027	0.46918	-0.93	2.04	-4.15374	-4.48356
65-74	********	0.10109	*******	1.02395	*****	0.10	********	-4.32059
AVERAGE	*******	1.11806	*******	0.33554	****	3.33		
STANDARDIZED	*******	0.18517	*******	0.05624	****	3.29		
45-74, UNIVARIATE	-0.50171	0.96789	0.71497	0.33166	-0.70	2.92	-4.62226	-4.90947
45-74, BIVARIATE	-0.64548	1.02459	0.71619	0.33284	-0.90	3.08		
45-74, MULTIVARIATE	-0.92593	0.62723	0.72273	0.36108	-1.28	1.74		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.96 FOR WOMEN.

TABLE 5-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	13152	38	29	28.9	9080	68	75	74.9	2954	15	51	50.8	48	48.0	48.2
YES	324	0	0	0.0	302	3	99	99.3	138	1	72	72.5	52	52.4	48.2
UNKNOWN	38	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	17228	27	16	15.7	12844	74	58	57.6	4626	31	67	67.0	38	38.0	38.1
YES	188	1	53	53.2	226	2	88	88.5	86	0	0	0.0	60	60.0	53.2
UNKNOWN	40	0			36	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	********	1.22957	*******	1.02367	*****	1.20	********	-5.76217
55-64	0.28748	0.43545	0.59584	0.72297	0.48	0.60	-4.18608	-4.45183
65-74	0.36000	********	1.04022	*******	0.35	*****	-4.57951	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	0.08685	0.46007	0.51087	0.58738	0.17	0.78	-4.63545	-4.87085
45-74, BIVARIATE	0.00152	0.33648	0.51173	0.58873	0.00	0.57		
45-74, MULTIVARIATE	-0.29381	0.03589	0.58993	0.60008	-0.50	0.06		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

TABLE 5-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	13116	37	28	28.2	8954	64	71	71.5	2888	15	52	51.9	46	46.5	46.8
YES	398	1	25	25.1	462	7	152	151.5	212	1	47	47.2	84	84.0	75.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	17128	26	15	15.2	12630	70	55	55.4	4430	29	65	65.5	37	36.6	37.2
YES	328	2	61	61.0	476	6	126	126.1	298	2	67	67.1	91	90.7	70.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.11640	1.39974	1.01599	0.73807	-0.11	1.90	-5.17187	-5.79419
55-64	0.76769	0.83606	0.40395	0.43061	1.90	1.94	-4.23343	-4.49104
65-74	-0.09728	0.02525	1.03773	0.73603	-0.09	0.03	-4.55668	-4.32253
AVERAGE	0.56090	0.78516	0.35298	0.33196	1.59	2.37		
STANDARDIZED	0.11544	0.15170	0.07458	0.05925	1.55	2.56		
45-74, UNIVARIATE	0.59890	0.92000	0.34887	0.33152	1.72	2.78	-4.66887	-4.91083
45-74, BIVARIATE	0.48724	0.64973	0.35055	0.33486	1.39	1.94		
45-74, MULTIVARIATE	0.49355	0.33419	0.35474	0.34605	1.39	0.97		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.11 FOR MEN, 1.77 FOR WOMEN.

TABLE 5-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ANGINA PECTORIS UNCOMPLICATED
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13514	38	28		9416	71	75		3100	16	52		48		
NO	12736	36	28	28.3	8672	63	73	72.6	2774	13	47	46.9	46	46.3	46.7
YES	778	2	26	25.7	744	8	108	107.5	326	3	92	92.0	70	70.3	65.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17456	28	16		13106	76	58		4728	31	66		38		
NO	16886	26	15	15.4	12300	67	54	54.5	4280	29	68	67.8	36	36.5	37.2
YES	570	2	35	35.1	806	9	112	111.7	448	2	45	44.6	71	71.3	57.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.09543	0.82761	0.72837	0.73628	-0.13	1.12	-5.16985	-5.77991
55-64	0.39922	0.72943	0.37928	0.35880	1.05	2.03	-4.21694	-4.50856
65-74	0.68397	-0.42191	0.64594	0.73448	1.06	-0.57	-4.66053	-4.28762
AVERAGE	0.37698	0.55909	0.29837	0.29532	1.26	1.89		
STANDARDIZED	0.09542	0.13750	0.08014	0.06827	1.19	2.01		
45-74, UNIVARIATE	0.42282	0.67747	0.29501	0.29376	1.43	2.31	-4.67241	-4.91380
45-74, BIVARIATE	0.33669	0.43624	0.29623	0.29674	1.14	1.47		
45-74, MULTIVARIATE	0.25308	0.23677	0.30954	0.30537	0.82	0.78		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.65 FOR MEN, 2.14 FOR WOMEN.

TABLE 6-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
074-109	818	1	12	9.4	538	1	19	19.2	144	0	0	23.8	13	13.6	15.3
110-119	2246	1	4	11.7	1134	0	0	23.6	284	0	0	28.8	3	17.1	18.8
120-129	2898	4	14	14.6	1734	4	23	29.0	420	2	48	35.0	20	21.6	23.1
130-139	2914	6	21	18.1	1752	10	57	35.6	562	3	53	42.4	36	27.2	28.4
140-149	1906	5	26	22.6	1416	7	49	43.8	530	3	57	51.3	39	34.3	34.8
150-159	1158	3	26	28.1	1000	4	40	53.8	422	2	47	62.2	35	43.2	42.7
160-169	634	3	47	34.9	636	5	79	66.1	280	1	36	75.3	58	54.3	52.4
170-179	330	1	30	43.4	458	4	87	81.1	152	1	66	91.1	64	68.4	64.3
180-189	218	0	0	54.0	268	2	75	99.5	112	2	179	110.1	67	85.9	78.8
190-300	200	2	100	67.0	394	5	127	121.9	194	4	206	133.0	140	108.0	96.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
074-109	1564	1	6	3.6	512	0	0	5.7	100	0	0	11.2	5	4.4	6.1
110-119	3016	0	0	3.6	1236	1	8	6.6	266	0	0	13.8	2	5.4	7.0
120-129	3412	1	3	3.5	1798	1	6	7.7	382	1	26	17.0	5	6.6	8.1
130-139	3390	1	3	3.5	2252	1	4	9.0	674	1	15	21.0	5	8.2	9.3
140-149	2088	3	14	3.4	1918	2	10	10.4	774	4	52	25.8	19	10.0	10.7
150-159	1486	0	0	3.4	1710	3	18	12.2	716	0	0	31.7	8	12.3	12.3
160-169	852	0	0	3.4	1242	2	16	14.2	574	2	35	39.0	15	15.0	14.2
170-179	554	0	0	3.3	848	2	24	16.5	470	1	21	48.0	16	18.4	16.4
180-189	398	0	0	3.3	624	1	16	19.2	302	4	132	59.0	38	22.6	18.8
190-300	426	0	0	3.3	848	2	24	22.3	470	4	85	72.5	34	27.7	21.7
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02194	-0.00105	0.00786	0.01776	2.79	-0.06	-8.57675	-7.12563
55-64	0.02079	0.01527	0.00506	0.00796	4.11	1.92	-7.74392	-8.38458
65-74	0.01937	0.02087	0.00735	0.00795	2.63	2.63	-7.37705	-8.28745
AVERAGE	0.02069	0.01633	0.00368	0.00536	5.61	3.05		
STANDARDIZED	0.47758	0.41793	0.08514	0.13885	5.61	3.01		
45-74, UNIVARIATE	0.02326	0.02045	0.00359	0.00455	6.48	4.50	-8.34843	-9.17855
45-74, BIVARIATE	0.02066	0.01420	0.00370	0.00533	5.58	2.67		
45-74, MULTIVARIATE	0.01473	0.01085	0.00423	0.00584	3.48	1.86		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.06 FOR MEN, 1.30 FOR WOMEN.

TABLE 6-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
020-069	830	1	12	9.0	732	1	14	28.6	354	1	28	26.5	16	17.8	17.7
070-074	1666	0	0	10.9	1290	7	54	32.1	520	1	19	32.6	23	20.8	20.8
075-079	1352	2	15	13.2	964	1	10	36.1	322	1	31	40.0	15	24.5	24.4
080-084	3256	6	18	16.0	2126	8	38	40.6	702	2	28	49.1	26	28.7	28.7
085-089	1796	6	33	19.3	1004	4	40	45.7	332	1	30	60.2	35	33.7	33.7
090-094	1858	3	16	23.4	1322	9	68	51.3	402	4	100	73.8	45	39.5	39.5
095-099	888	4	45	28.3	590	1	17	57.7	138	2	145	90.4	43	46.3	46.4
100-104	930	1	11	34.2	656	7	107	64.8	160	4	250	110.6	69	54.3	54.5
105-109	282	0	0	41.3	170	1	59	72.9	34	1	294	135.3	41	63.7	63.9
110-160	464	3	65	49.9	476	3	63	81.8	136	1	74	165.3	65	74.7	75.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
020-069	1596	1	6	3.5	874	0	0	5.7	402	1	25	21.0	7	6.2	6.7
070-074	2778	0	0	3.5	1668	1	6	6.7	588	1	17	24.0	4	7.2	7.6
075-079	1952	1	5	3.5	1212	3	25	7.9	424	3	71	27.5	20	8.3	8.6
080-084	4034	2	5	3.5	2870	0	0	9.4	1100	1	9	31.5	4	9.6	9.8
085-089	2040	0	0	3.5	1566	2	13	11.1	490	2	41	36.1	10	11.1	11.1
090-094	2172	1	5	3.5	2014	4	20	13.1	758	3	40	41.3	16	12.8	12.7
095-099	826	0	0	3.5	826	1	12	15.5	320	2	63	47.3	15	14.8	14.4
100-104	834	1	12	3.5	962	1	10	18.3	346	1	29	54.1	14	17.0	16.4
105-109	270	0	0	3.5	288	0	0	21.7	68	0	0	61.9	0	19.7	18.7
110-160	684	0	0	3.6	708	3	42	25.6	232	3	129	70.8	37	22.7	21.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.03816	0.00057	0.01448	0.03227	2.63	0.02	-8.88972	-7.31374
55-64	0.02364	0.03360	0.01088	0.01700	2.17	1.98	-6.75564	-9.04929
65-74	0.04127	0.02726	0.01441	0.01691	2.86	1.61	-8.01938	-7.31012
AVERAGE	0.03219	0.02679	0.00745	0.01124	4.32	2.38		
STANDARDIZED	0.40820	0.34453	0.09435	0.14500	4.33	2.38		
45-74, UNIVARIATE	0.03217	0.02874	0.00765	0.01081	4.20	2.66	-7.80833	-8.62464
45-74, BIVARIATE	0.03242	0.02583	0.00742	0.01126	4.37	2.29		
45-74, MULTIVARIATE	0.02375	0.02300	0.00781	0.01171	3.04	1.96		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.18 FOR MEN, 0.82 FOR WOMEN.

TABLE 6-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
096-189	1564	1	6	10.6	1152	1	9	31.3	406	1	25	68.8	10	23.9	23.3
190-204	1344	3	22	12.3	992	1	10	34.4	382	6	157	65.4	37	26.1	25.7
205-219	1962	0	0	14.2	1212	8	66	37.8	404	2	50	62.0	28	28.6	28.2
220-234	1994	7	35	16.4	1464	9	61	41.6	478	5	105	58.9	53	31.2	31.0
235-249	1670	3	18	19.0	1294	7	54	45.7	370	1	27	55.9	33	34.1	34.1
250-264	1484	2	13	21.9	1154	4	35	50.2	350	0	0	53.1	20	37.3	37.4
265-279	1060	1	9	25.4	764	3	39	55.2	268	0	0	50.4	19	40.7	41.2
280-294	718	3	42	29.3	480	2	42	60.7	230	1	43	47.8	42	44.5	45.2
295-309	418	3	72	33.9	312	4	128	66.7	90	1	111	45.4	98	48.6	49.7
310-1124	602	2	33	39.2	338	2	59	73.2	102	1	98	43.1	48	53.1	54.6
UNKNOWN	506	1			168	1			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
096-189	1704	0	0	2.3	554	1	18	2.3	154	0	0	11.0	4	5.0	5.0
190-204	1656	0	0	2.5	702	0	0	2.9	206	0	0	13.2	0	5.8	5.8
205-219	2026	0	0	2.8	1030	1	10	3.7	352	0	0	15.9	3	6.6	6.7
220-234	2416	0	0	3.1	1580	0	0	4.8	526	2	38	19.1	4	7.6	7.7
235-249	2174	1	5	3.4	1558	1	6	6.2	604	2	33	22.9	9	8.8	8.8
250-264	1826	1	5	3.7	1702	1	6	8.0	632	1	16	27.4	7	10.2	10.2
265-279	1522	1	7	4.1	1608	1	6	10.2	664	2	30	32.8	11	11.7	11.7
280-294	1130	0	0	4.5	1298	1	8	13.2	476	2	42	39.4	10	13.5	13.5
295-309	734	2	27	5.0	940	2	21	17.0	350	3	86	47.2	35	15.5	15.5
310-1124	1292	1	8	5.5	1698	7	41	21.8	708	4	56	56.5	32	17.9	17.9
UNKNOWN	706	0			318	0			56	1					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00973	0.00648	0.00307	0.00289	3.17	2.25	-7.92926	-8.86791
55-64	0.00636	0.01684	0.00350	0.00410	1.82	4.10	-6.22773	-10.77608
65-74	-0.00351	0.01216	0.00591	0.00502	-0.59	2.42	-3.63079	-8.33172
AVERAGE	0.00671	0.01032	0.00215	0.00214	3.12	4.83		
STANDARDIZED	0.27476	0.47398	0.08903	0.09795	3.09	4.84		
45-74, UNIVARIATE	0.00596	0.00947	0.00229	0.00231	2.61	4.10	-6.42573	-8.63623
45-74, BIVARIATE	0.00635	0.00939	0.00233	0.00197	2.72	4.76		
45-74, MULTIVARIATE	0.00613	0.00877	0.00235	0.00199	2.61	4.40		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.96 FOR MEN, 4.42 FOR WOMEN.

TABLE 6-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
062-179	1802	1	6	10.9	1180	1	8	29.2	148	1	68	90.3	10	22.9	23.4
180-199	852	2	23	12.4	594	1	17	32.2	74	0	0	81.9	20	25.0	25.4
200-219	1076	2	19	14.1	744	2	27	35.5	224	1	45	74.3	24	27.2	27.6
220-239	1340	1	7	16.0	992	9	91	39.1	280	5	179	67.4	57	29.7	29.9
240-259	1820	4	22	18.1	1386	6	43	43.1	630	4	63	61.1	36	32.4	32.5
260-279	1826	3	16	20.6	1452	5	34	47.5	592	3	51	55.4	28	35.3	35.3
280-299	1564	5	32	23.4	1158	8	69	52.3	460	1	22	50.3	44	38.4	38.3
300-319	1056	1	9	26.5	818	3	37	57.7	374	2	53	45.6	27	41.9	41.5
320-339	774	3	39	30.1	408	2	49	63.5	210	0	0	41.3	36	45.7	45.1
340-968	644	3	47	34.2	406	4	99	70.0	86	1	116	37.4	70	49.8	48.9
UNKNOWN	568	1			192	1			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
062-179	2128	0	0	1.8	1076	0	0	1.8	90	0	0	6.5	0	3.2	3.4
180-199	896	0	0	2.1	614	1	16	2.4	68	0	0	8.3	6	4.0	4.2
200-219	1608	0	0	2.4	992	0	0	3.3	202	0	0	10.7	0	5.0	5.2
220-239	1662	0	0	2.8	1020	1	10	4.5	250	0	0	13.8	3	6.2	6.4
240-259	2192	1	5	3.2	1378	2	15	6.1	500	0	0	17.7	7	7.7	7.8
260-279	2300	2	9	3.7	1770	1	6	8.3	734	4	54	22.8	15	9.5	9.6
280-299	1914	1	5	4.3	1760	0	0	11.2	804	0	0	29.3	2	11.8	11.8
300-319	1648	0	0	5.0	1676	3	18	15.3	886	5	56	37.6	19	14.6	14.6
320-339	1006	2	20	5.7	1100	3	27	20.8	548	3	55	48.3	30	18.1	17.9
340-968	1022	0	0	6.6	1242	4	32	28.3	576	4	69	62.0	28	22.4	22.0
UNKNOWN	810	0			360	0			70	1					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT): REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00636	0.00713	0.00286	0.00403	2.22	1.77	-7.20465	-9.12451
55-64	0.00490	0.01543	0.00248	0.00463	1.97	3.33	-5.96862	-10.57185
65-74	-0.00495	0.01261	0.00501	0.00490	-0.99	2.57	-3.15504	-8.79079
AVERAGE	0.00424	0.01124	0.00175	0.00258	2.42	4.35		
STANDARDIZED	0.22194	0.63196	0.10131	0.14456	2.19	4.37		
45-74, UNIVARIATE	0.00434	0.01076	0.00176	0.00228	2.47	4.72	-6.11759	-9.16768
45-74, BIVARIATE	0.00413	0.01035	0.00185	0.00219	2.23	4.74		
45-74, MULTIVARIATE	0.00188	0.00436	0.00224	0.00386	0.84	1.13		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.98 FOR MEN, 1.94 FOR WOMEN.

TABLE 6-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
029-059	372	1	27	18.0	274	3	109	43.9	68	0	0	39.8	56	27.7	28.5
060-069	2400	5	21	18.4	1474	4	27	44.1	518	6	116	43.9	34	29.4	30.0
070-079	4326	9	21	18.9	2844	12	42	44.4	908	2	22	48.5	28	31.2	31.5
080-089	3140	4	13	19.3	2286	14	61	44.6	694	1	14	53.5	31	33.1	33.2
090-099	1456	2	14	19.8	1116	4	36	44.9	452	3	66	59.1	30	35.1	34.9
100-109	590	2	34	20.3	486	1	21	45.1	154	1	65	65.2	33	37.2	36.7
110-119	274	0	0	20.8	252	1	40	45.4	64	1	156	72.0	34	39.4	38.6
120-129	114	0	0	21.3	136	0	0	45.6	58	1	172	79.4	32	41.8	40.6
130-139	70	1	143	21.8	70	1	143	45.9	52	0	0	87.6	104	44.3	42.7
140-524	252	1	40	22.3	250	1	40	46.1	106	3	283	96.6	82	47.0	44.9
UNKNOWN	328	1			142	1			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
029-059	348	0	0	1.6	274	0	0	9.5	72	0	0	21.3	0	6.9	7.4
060-069	2964	0	0	2.0	1696	4	24	10.2	556	3	54	24.1	13	7.8	8.3
070-079	5796	2	3	2.4	4048	3	7	10.8	1462	6	41	27.3	10	8.9	9.3
080-089	4372	2	5	3.0	3560	4	11	11.6	1242	2	16	30.8	9	10.2	10.4
090-099	1792	0	0	3.7	1598	0	0	12.4	626	3	48	34.9	7	11.6	11.7
100-109	686	0	0	4.5	714	1	14	13.2	326	0	0	39.5	6	13.2	13.1
110-119	328	0	0	5.6	296	1	34	14.1	124	0	0	44.6	13	15.0	14.7
120-129	112	0	0	6.9	218	0	0	15.0	110	0	0	50.5	0	17.1	16.5
130-139	48	0	0	8.5	62	0	0	16.1	40	0	0	57.1	0	19.5	18.5
140-524	186	2	108	10.5	284	2	70	17.1	124	2	161	64.5	101	22.2	20.8
UNKNOWN	554	0			238	0			46	1					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00238	0.02101	0.00712	0.00466	0.33	4.51	-5.75345	-9.21197
55-64	0.00055	0.00656	0.00579	0.00600	0.10	1.09	-4.75673	-6.62300
65-74	0.00998	0.01242	0.00350	0.00421	2.85	2.95	-5.37439	-6.13737
AVERAGE	0.00669	0.01421	0.00276	0.00277	2.42	5.13		
STANDARDIZED	0.17536	0.33120	0.07708	0.06224	2.28	5.32		
45-74, UNIVARIATE	0.00591	0.01304	0.00268	0.00253	2.21	5.16	-5.51470	-7.30271
45-74, BIVARIATE	0.00510	0.01149	0.00276	0.00268	1.85	4.29		
45-74, MULTIVARIATE	0.00413	0.00899	0.00291	0.00291	1.42	3.09		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.37 FOR MEN, 3.94 FOR WOMEN.

TABLE 6-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
065-099	1168	1	9	17.4	836	6	72	28.8	320	0	0	49.3	30	25.9	25.2
100-104	838	0	0	17.8	536	3	56	31.5	194	1	52	51.1	26	27.3	26.7
105-109	1228	2	16	18.2	772	0	0	34.5	292	2	68	53.0	17	28.8	28.3
110-114	1438	4	28	18.7	1130	6	53	37.8	358	1	28	55.0	38	30.3	30.0
115-119	1680	4	24	19.1	1288	3	23	41.3	410	6	146	57.0	38	32.0	31.8
120-124	1828	6	33	19.6	1350	3	22	45.2	422	3	71	59.0	33	33.7	33.7
125-129	1510	1	7	20.1	1040	4	38	49.4	320	1	31	61.2	21	35.5	35.7
130-134	1276	2	16	20.6	918	4	44	54.1	326	1	31	63.4	28	37.4	37.8
135-139	756	3	40	21.1	534	3	56	59.2	178	2	112	65.8	54	39.4	40.0
140-272	1598	3	19	21.6	924	10	108	64.7	280	1	36	68.2	50	41.6	42.4
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
065-099	2042	1	5	2.4	1046	1	10	10.9	472	3	64	47.0	14	10.4	11.3
100-104	1542	0	0	2.5	840	0	0	11.0	306	1	33	44.6	4	10.5	11.2
105-109	1948	0	0	2.7	1250	0	0	11.1	348	0	0	42.3	0	10.6	11.1
110-114	2040	0	0	2.9	1288	2	16	11.2	430	2	47	40.1	11	10.7	11.0
115-119	1926	0	0	3.1	1446	2	14	11.4	522	1	19	38.0	8	10.8	11.0
120-124	1670	0	0	3.4	1474	4	27	11.5	490	3	61	36.1	19	10.9	10.9
125-129	1364	1	7	3.6	1184	0	0	11.6	436	1	23	34.2	7	11.0	10.8
130-134	1042	1	10	3.9	974	1	10	11.7	322	3	93	32.4	21	11.1	10.8
135-139	862	2	23	4.2	754	1	13	11.8	328	0	0	30.8	15	11.2	10.7
140-272	2750	1	4	4.5	2732	4	15	11.9	1074	3	28	29.2	12	11.3	10.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00489	0.01397	0.01205	0.01450	0.41	0.96	-6.13557	-9.01277
55-64	0.01814	0.00202	0.00966	0.01124	1.88	0.18	-6.91936	-6.32145
65-74	0.00727	-0.01069	0.01465	0.01173	0.50	-0.91	-5.31696	-3.61462
AVERAGE	0.01177	0.00023	0.00670	0.00708	1.76	0.03		
STANDARDIZED	0.18684	0.00950	0.10511	0.15874	1.78	0.06		
45-74, UNIVARIATE	0.01061	0.00181	0.00666	0.00711	1.59	0.25	-6.29342	-6.35130
45-74, BIVARIATE	0.01169	-0.00132	0.00669	0.00730	1.75	-0.18		
45-74, MULTIVARIATE	0.00787	-0.00448	0.00698	0.00761	1.13	-0.59		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.86 FOR MEN, 1.79 FOR WOMEN.

TABLE 6-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
12-31	150	1	67	10.1	274	2	73	60.2	208	1	48	66.1	63	45.8	33.0
32-35	144	0	0	11.2	296	1	34	56.7	218	1	46	63.0	30	43.0	33.0
36-39	450	0	0	12.4	542	4	74	53.4	326	1	31	60.0	38	40.4	33.1
40-43	754	1	13	13.8	1008	7	69	50.3	506	4	79	57.1	53	38.0	33.1
44-47	1618	2	12	15.4	1552	7	45	47.4	544	4	74	54.4	35	35.7	33.1
48-51	1678	2	12	17.0	1480	6	41	44.7	492	3	61	51.8	30	33.5	33.1
52-55	2504	8	32	18.9	1626	4	25	42.1	396	3	76	49.3	33	31.5	33.1
56-59	2352	3	13	21.0	1238	6	48	39.6	236	0	0	47.0	24	29.6	33.1
60-63	1768	3	17	23.3	764	2	26	37.3	104	0	0	44.7	19	27.8	33.1
64-85	1898	6	32	25.9	522	3	57	35.1	56	0	0	42.6	36	26.1	33.1
UNKNOWN	6	0			28	0			14	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
04-19	82	0	0	12.3	256	1	39	42.4	260	2	77	73.3	50	53.1	32.3
20-23	190	0	0	9.7	374	0	0	30.4	282	2	71	58.5	24	36.4	25.4
24-27	386	1	26	7.7	830	2	24	21.8	562	2	36	46.7	28	24.9	19.9
28-31	958	0	0	6.1	1712	4	23	15.7	944	3	32	37.3	19	17.1	15.6
32-35	2108	0	0	4.8	2794	5	18	11.2	1144	5	44	29.7	17	11.7	12.3
36-39	2958	2	7	3.8	2724	2	7	8.1	800	2	25	23.7	9	8.0	9.6
40-43	4028	3	7	3.0	2304	0	0	5.8	458	1	22	18.9	6	5.5	7.6
44-47	3212	0	0	2.4	1250	1	8	4.1	200	0	0	15.0	2	3.7	5.9
48-51	2022	0	0	1.9	498	0	0	3.0	60	0	0	12.0	0	2.5	4.7
52-77	1226	0	0	1.5	234	0	0	2.1	18	0	0	9.5	0	1.7	3.7
UNKNOWN	16	0			12	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.02626	-0.05876	0.02224	0.05155	1.18	-1.14	-6.99094	-4.94882
55-64	-0.01509	-0.08330	0.01673	0.03099	-0.90	-2.69	-3.95474	-3.26291
65-74	-0.01236	-0.05705	0.02674	0.03111	-0.46	-1.83	-3.94108	-3.18047
AVERAGE	-0.00259	-0.06847	0.01196	0.02020	-0.22	-3.39		
STANDARDIZED	-0.02286	-0.50852	0.10856	0.15011	-0.21	-3.39		
45-74, UNIVARIATE	-0.01574	-0.09525	0.01122	0.01807	-1.40	-5.27	-4.21173	-2.81928
45-74, BIVARIATE	0.00004	-0.06070	0.01214	0.02079	0.00	-2.92		
45-74, MULTIVARIATE	0.01061	-0.06080	0.01253	0.02212	0.85	-2.75		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.37 FOR MEN, 0.40 FOR WOMEN.

TABLE 6-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
37-63	2066	3	15	10.5	1766	5	28	25.9	516	3	58	48.7	25	20.5	20.7
64-67	1288	0	0	12.1	962	1	10	29.8	364	2	55	51.2	11	23.2	23.4
68-71	1788	3	17	14.1	1280	4	31	34.2	472	1	21	53.8	23	26.2	26.4
72-75	2534	4	16	16.3	1746	8	46	39.3	606	3	50	56.6	31	29.6	29.7
76-79	720	2	28	18.9	442	3	68	45.1	118	0	0	59.5	39	33.4	33.5
80-83	1616	2	12	21.9	1074	3	28	51.7	344	4	116	62.6	30	37.7	37.7
84-87	970	3	31	25.3	618	4	65	59.4	188	2	106	65.8	51	42.6	42.5
88-91	946	4	42	29.4	532	2	38	68.1	168	0	0	69.2	36	48.1	47.9
92-95	498	0	0	34.0	340	5	147	78.1	114	1	88	72.7	63	54.3	53.9
96-170	896	5	56	39.4	570	7	123	89.6	210	2	95	76.4	84	61.3	60.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
37-63	1692	0	0	2.4	1540	1	6	6.4	480	3	63	35.4	11	7.5	8.1
64-67	1514	0	0	2.6	994	0	0	7.2	328	0	0	35.6	0	8.2	8.6
68-71	2248	2	9	2.9	1608	0	0	8.2	570	3	53	35.7	11	8.9	9.3
72-75	3432	1	3	3.1	2504	5	20	9.3	758	2	26	35.8	12	9.6	9.9
76-79	966	0	0	3.4	792	0	0	10.5	218	1	46	35.9	5	10.5	10.6
80-83	2286	0	0	3.7	1736	0	0	11.9	748	3	40	36.0	6	11.4	11.3
84-87	1544	1	6	4.0	1038	3	29	13.6	438	2	46	36.2	20	12.4	12.1
88-91	1236	0	0	4.3	970	2	21	15.4	398	0	0	36.3	8	13.4	13.0
92-95	772	2	26	4.7	630	1	16	17.5	256	0	0	36.4	18	14.6	13.9
96-170	1496	0	0	5.1	1176	3	26	19.8	534	3	56	36.5	19	15.8	14.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.03692	0.02045	0.01386	0.03038	2.66	0.67	-8.45435	-8.89430
55-64	0.03478	0.03165	0.00962	0.01537	3.61	2.06	-7.41296	-8.62955
65-74	0.01268	0.00085	0.01648	0.01864	0.77	0.05	-5.40834	-4.99487
AVERAGE	0.03121	0.01935	0.00713	0.01105	4.38	1.75		
STANDARDIZED	0.40393	0.24924	0.09193	0.14147	4.39	1.76		
45-74, UNIVARIATE	0.03058	0.02071	0.00726	0.01153	4.21	1.80	-7.38676	-7.78221
45-74, BIVARIATE	0.03011	0.01707	0.00704	0.01158	4.27	1.47		
45-74, MULTIVARIATE	0.02194	0.00669	0.00739	0.01264	2.97	0.53		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.57 FOR MEN, 1.63 FOR WOMEN.

TABLE 6-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NONE	5046	4	8	10.3	4520	12	27	33.1	1868	11	59	51.5	24	26.0	22.7
UNDER 20	1884	3	16	15.0	1474	10	68	42.1	544	2	37	60.1	38	31.1	29.8
20	3092	10	32	21.8	1810	11	61	53.6	368	1	27	70.0	42	37.3	39.1
OVER 20	3232	8	25	31.7	1486	8	54	68.2	310	4	129	81.5	40	44.8	51.3
UNKNOWN	68	1			40	1			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NONE	9626	2	2	1.6	9114	11	12	12.6	3778	11	29	30.5	11	10.5	8.9
UNDER 20	4042	1	2	3.3	2244	3	13	10.1	626	3	48	41.6	10	10.7	11.7
20	2434	1	4	6.9	1080	1	9	8.1	220	2	91	56.7	11	11.0	15.3
OVER 20	1016	2	20	14.2	502	0	0	6.5	82	0	0	77.3	13	11.2	20.1
UNKNOWN	68	0			48	0			22	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.37533	0.72601	0.17307	0.36606	2.17	1.98	-6.18179	-8.04182
55-64	0.24318	-0.22291	0.13010	0.37726	1.87	-0.59	-5.01115	-5.97721
65-74	0.15477	0.31319	0.21426	0.31442	0.72	1.00	-4.56429	-5.09405
AVERAGE	0.26494	0.28531	0.09355	0.20160	2.83	1.42		
STANDARDIZED	0.29602	0.19892	0.10645	0.14916	2.78	1.33		
45-74, UNIVARIATE	0.18286	0.02123	0.08984	0.18907	2.04	0.11	-5.25561	-6.16202
45-74, BIVARIATE	0.27428	0.27390	0.09226	0.18888	2.97	1.45		
45-74, MULTIVARIATE	0.31824	0.34565	0.09370	0.19019	3.40	1.82		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.70 FOR MEN, 3.27 FOR WOMEN.

TABLE 6-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	7008	8	11	11.6	4286	11	26	29.1	1214	2	16	22.4	17	18.7	19.6
BORDER	4040	9	22	21.6	3000	17	57	46.9	1212	8	66	54.1	41	35.4	35.6
DEFINITE	2274	9	40	40.2	2044	14	68	75.6	674	8	119	129.4	62	66.9	64.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	9764	2	2	2.6	4858	2	4	7.0	1136	1	9	12.2	3	4.7	6.5
BORDER	4872	3	6	4.0	4646	8	17	11.3	1908	6	31	27.4	15	10.6	11.2
DEFINITE	2550	1	4	6.0	3484	5	14	18.3	1684	10	59	61.7	21	23.9	19.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.62360	0.42098	0.24153	0.50621	2.58	0.83	-6.06323	-7.56210
55-64	0.48280	0.48513	0.19098	0.33087	2.53	1.47	-5.14169	-6.57649
65-74	0.88739	0.81638	0.32769	0.37918	2.71	2.15	-5.40286	-6.01604
AVERAGE	0.59754	0.58785	0.13624	0.22365	4.39	2.63		
STANDARDIZED	0.46309	0.45355	0.10524	0.17247	4.40	2.63		
45-74, UNIVARIATE	0.64212	0.81296	0.13466	0.21025	4.77	3.87	-5.58504	-6.96519
45-74, BIVARIATE	0.59988	0.54014	0.13596	0.22054	4.41	2.45		
45-74, MULTIVARIATE	0.42784	0.41551	0.14586	0.23044	2.93	1.80		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.15 FOR MEN, 0.57 FOR WOMEN.

TABLE 6-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	11284	18	16	15.6	7190	27	38	37.9	2068	12	58	56.4	28	27.6	29.0
POSSIBLE	994	2	20	28.9	986	6	61	55.3	448	2	45	59.5	41	43.2	41.4
DEFINITE	1038	6	58	53.6	1152	9	78	80.5	584	4	68	62.8	68	67.6	59.1
UNKNOWN	6	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	13924	4	3	2.6	8274	4	5	7.4	2264	5	22	21.8	5	6.1	8.0
POSSIBLE	1564	0	0	5.0	2062	7	34	13.1	884	3	34	35.2	22	13.3	13.0
DEFINITE	1692	2	12	9.5	2644	4	15	23.2	1580	9	57	56.6	25	28.7	21.3
UNKNOWN	6	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.62204	0.65103	0.23945	0.46883	2.60	1.39	-5.76909	-7.56364
55-64	0.38053	0.57200	0.18748	0.28569	2.03	2.00	-4.87377	-6.51062
65-74	0.05415	0.47974	0.29317	0.27892	0.18	1.72	-4.47310	-5.42908
AVERAGE	0.38774	0.54413	0.13185	0.18363	2.94	2.96		
STANDARDIZED	0.26993	0.43784	0.08746	0.14697	3.09	2.98		
45-74, UNIVARIATE	0.45138	0.77457	0.13123	0.17735	3.44	4.37	-5.19289	-6.70222
45-74, BIVARIATE	0.35981	0.49383	0.13439	0.19661	2.68	2.65		
45-74, MULTIVARIATE	0.18156	0.35297	0.14874	0.20046	1.22	1.76		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.25 FOR MEN, 0.11 FOR WOMEN.

TABLE 6-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	12886	24	19	18.2	8738	34	39	38.1	2896	11	38	41.3	28	28.0	28.8
POSSIBLE	252	0	0	38.8	358	2	56	93.9	82	3	366	132.1	72	78.9	74.6
DEFINITE	184	2	109	82.1	234	6	256	227.3	122	4	328	406.4	222	218.0	190.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	16880	6	4	******	12332	14	11	11.1	4394	13	30	30.5	10	9.9	10.3
POSSIBLE	196	0	0	******	378	0	0	16.6	174	2	115	68.1	27	23.7	19.3
DEFINITE	110	0	0	******	278	1	36	24.7	160	2	125	150.5	55	56.8	36.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.75862	*******	0.39794	*******	1.91	****	-5.60962	********
55-64	0.91214	0.40155	0.22797	0.56858	4.00	0.71	-4.86848	-6.10814
65-74	1.18159	0.81006	0.27358	0.34333	4.32	2.36	-4.78822	-5.09290
AVERAGE	0.97973	0.70091	0.16030	0.29390	6.11	2.38		
STANDARDIZED	0.33442	0.25813	0.05662	0.11123	5.91	2.32		
45-74, UNIVARIATE	1.04470	0.88071	0.15569	0.28374	6.71	3.10	-5.17771	-6.22740
45-74, BIVARIATE	0.96319	0.62882	0.15754	0.28888	6.11	2.18		
45-74, MULTIVARIATE	0.75679	0.41463	0.18183	0.31471	4.16	1.32		

CHI SQUARE FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.94 (2 DF) FOR MEN, 0.38 (1 DF) FOR WOMEN.

TABLE 6-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	13178	25	19	19.0	9118	38	42	41.7	2946	18	61	61.1	32	32.1	32.5
YES	144	1	69	69.4	212	4	189	188.7	154	0	0	0.0	98	98.0	76.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	17092	6	4	3.5	12782	13	10	10.2	4660	17	36	36.5	10	10.4	10.6
YES	94	0	0	0.0	206	2	97	97.1	68	0	0	0.0	54	54.3	40.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.30780	********	1.02676	*******	1.27	*****	-5.57048	********
55-64	1.54022	2.27369	0.53511	0.76615	2.88	2.97	-4.77890	-6.19566
65-74	********	********	*******	*******	*****	*****	********	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.13021	1.66009	0.46522	0.73029	2.43	2.27	-5.04223	-6.17095
45-74, BIVARIATE	0.86057	1.35007	0.47088	0.73432	1.83	1.84		
45-74, MULTIVARIATE	0.96832	1.49793	0.47558	0.74197	2.04	2.02		

TABLE 6-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	12722	25	20	19.7	8726	37	42	42.4	2816	14	50	49.7	31	31.3	31.8
YES	600	1	17	16.7	604	5	83	82.8	284	4	141	140.8	67	67.2	59.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	16574	4	2	2.4	12166	11	9	9.0	4298	12	28	27.9	8	8.2	8.9
YES	612	2	33	32.7	822	4	49	48.7	430	5	116	116.3	59	59.0	45.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	-0.16532	2.61178	1.02152	0.86799	-0.16	3.01	-5.53513	-7.63567
55-64	0.67719	1.69103	0.48023	0.58612	1.41	2.89	-4.76148	-6.31355
65-74	1.05992	1.44458	0.57393	0.53718	1.85	2.69	-4.60087	-5.18225
AVERAGE	0.71975	1.73881	0.34647	0.36029	2.08	4.83		
STANDARDIZED	0.17124	0.43450	0.08759	0.08783	1.95	4.95		
45-74, UNIVARIATE	0.77066	1.98723	0.33853	0.35929	2.28	5.53	-5.06658	-6.41479
45-74, BIVARIATE	0.62862	1.63024	0.34084	0.36537	1.84	4.46		
45-74, MULTIVARIATE	0.29894	1.48514	0.34490	0.37297	0.87	3.98		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.11 FOR MEN, 1.32 FOR WOMEN.

TABLE 6-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	13076	24	18	18.4	8976	37	41	41.2	2956	16	54	54.1	31	30.8	31.3
YES	204	2	98	98.0	322	4	124	124.2	136	2	147	147.1	121	120.8	102.7
UNKNOWN	42	0			32	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	16602	6	4	3.6	12604	15	12	11.9	4574	16	35	35.0	11	11.0	10.9
YES	542	0	0	0.0	344	0	0	0.0	138	1	72	72.5	10	9.8	10.6
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.69163	********	0.74285	*******	2.28	*****	-5.60365	********
55-64	1.12001	********	0.53256	*******	2.10	*****	-4.78997	********
65-74	1.01846	0.73588	0.76048	1.03810	1.34	0.71	-4.51497	-4.95539
AVERAGE	1.24174	*******	0.37617	*******	3.30	****		
STANDARDIZED	0.20691	*******	0.06128	*******	3.38	****		
45-74, UNIVARIATE	1.38561	-0.11500	0.37572	1.01442	3.69	-0.11	-5.08382	-6.12137
45-74, BIVARIATE	1.20686	-0.03066	0.37889	1.01580	3.19	-0.03		
45-74, MULTIVARIATE	0.48278	-1.60815	0.41891	1.43795	1.15	-1.12		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.51 FOR MEN.

TABLE 6-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	12968	25	19	19.3	9004	39	43	43.3	2954	13	44	44.0	31	30.9	31.2
YES	316	1	32	31.6	294	2	68	68.0	138	5	362	362.3	107	107.0	96.6
UNKNOWN	38	0			32	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	16964	5	3	2.9	12728	12	9	9.4	4626	15	32	32.4	9	9.3	9.6
YES	182	1	55	54.9	224	3	134	133.9	86	2	233	232.6	122	122.0	104.5
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.49811	2.93586	1.02300	1.10056	0.49	2.67	-5.55435	-7.43567
55-64	0.45643	2.67888	0.72991	0.65269	0.63	4.10	-4.74002	-6.27162
65-74	2.17453	2.01132	0.54151	0.76909	4.02	2.62	-4.72398	-5.03174
AVERAGE	1.40136	2.49046	0.40023	0.45344	3.50	5.49		
STANDARDIZED	0.24085	0.31279	0.07405	0.05670	3.25	5.52		
45-74, UNIVARIATE	1.25733	2.59380	0.37523	0.44960	3.35	5.77	-5.08052	-6.28268
45-74, BIVARIATE	1.14624	2.41123	0.37698	0.45472	3.04	5.30		
45-74, MULTIVARIATE	1.05714	2.23802	0.38763	0.48128	2.73	4.65		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.49 FOR MEN, 0.64 FOR WOMEN.

TABLE 6-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	12930	25	19	19.3	8872	40	45	45.1	2888	15	52	51.9	32	32.4	32.7
YES	392	1	26	25.5	458	2	44	43.7	212	3	142	141.5	56	56.5	48.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	16868	4	2	2.4	12512	13	10	10.4	4430	14	32	31.6	9	9.2	9.8
YES	318	2	63	62.9	476	2	42	42.0	298	3	101	100.7	64	64.1	44.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.27841	3.29016	1.02239	0.86976	0.27	3.78	-5.55141	-7.65326
55-64	-0.03223	1.40358	0.72776	0.76244	-0.04	1.84	-4.69957	-6.17427
65-74	1.02056	1.17262	0.64063	0.64192	1.59	1.83	-4.55668	-5.05761
AVERAGE	0.50975	1.75710	0.43514	0.42761	1.17	4.11		
STANDARDIZED	0.09936	0.34956	0.09443	0.07843	1.05	4.46		
45-74, UNIVARIATE	0.56084	1.95574	0.42562	0.42075	1.32	4.65	-5.03248	-6.29954
45-74, BIVARIATE	0.40603	1.51276	0.42760	0.42790	0.95	3.54		
45-74, MULTIVARIATE	0.34212	1.18793	0.43476	0.46306	0.79	2.57		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.24 FOR MEN, 4.15 FOR WOMEN.

TABLE 6-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CORONARY HEART DISEASE DEATH
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	26	20		9330	42	45		3100	18	58		33		
NO	12562	24	19	19.1	8596	39	45	45.4	2774	12	43	43.3	31	31.3	31.8
YES	760	2	26	26.3	734	3	41	40.9	326	6	184	184.0	60	60.4	54.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	6	3		12988	15	12		4728	17	36		11		
NO	16630	4	2	2.4	12194	12	10	9.8	4280	14	33	32.7	9	9.1	9.7
YES	556	2	36	36.0	794	3	38	37.8	448	3	67	67.0	44	44.5	32.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.32166	2.71179	0.73788	0.86818	0.44	3.12	-5.56340	-7.63904
55-64	-0.10531	1.35094	0.60163	0.64759	-0.18	2.09	-4.69323	-6.22867
65-74	1.47682	0.72339	0.50705	0.64012	2.91	1.13	-4.74130	-5.02294
AVERAGE	0.71198	1.39547	0.34322	0.40318	2.07	3.46		
STANDARDIZED	0.17776	0.35428	0.09384	0.09434	1.89	3.76		
45-74, UNIVARIATE	0.66266	1.59835	0.32471	0.39939	2.04	4.00	-5.06605	-6.31125
45-74, BIVARIATE	0.54322	1.19491	0.32636	0.40578	1.66	2.94		
45-74, MULTIVARIATE	0.44171	0.95592	0.33159	0.43044	1.33	2.22		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.40 FOR MEN, 3.41 FOR WOMEN.

TABLE 7-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
074-109	818	0	0	8.7	538	1	19	12.1	144	0	0	9.2	7	9.0	9.6
110-119	2246	1	4	9.7	1134	0	0	14.7	284	0	0	11.1	3	10.9	11.5
120-129	2898	2	7	10.7	1734	1	6	17.8	420	1	24	13.5	8	13.3	13.8
130-139	2914	6	21	11.9	1752	9	51	21.7	562	2	36	16.4	33	16.1	16.4
140-149	1906	4	21	13.3	1416	4	28	26.3	530	0	0	19.9	21	19.5	19.6
150-159	1158	1	9	14.7	1000	1	10	32.0	422	1	24	24.1	12	23.7	23.5
160-169	634	2	32	16.4	636	2	31	38.8	280	0	0	29.2	26	28.7	28.0
170-179	330	0	0	18.2	458	2	44	47.1	152	0	0	35.4	21	34.8	33.4
180-189	218	0	0	20.2	268	2	75	57.1	112	1	89	42.9	50	42.2	39.9
190-300	200	0	0	22.4	394	3	76	69.2	194	2	103	52.0	63	51.1	47.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
074-109	1564	1	6	2.5	512	0	0	2.4	100	0	0	4.4	5	2.0	2.9
110-119	3016	0	0	2.2	1236	0	0	2.6	266	0	0	5.4	0	2.4	3.1
120-129	3412	1	3	1.9	1798	0	0	2.9	382	0	0	6.5	2	2.8	3.4
130-139	3390	0	0	1.6	2252	0	0	3.3	674	1	15	7.8	2	3.3	3.7
140-149	2088	1	5	1.4	1918	2	10	3.7	774	1	13	9.5	8	3.9	4.0
150-159	1486	0	0	1.2	1710	2	12	4.1	716	0	0	11.5	5	4.6	4.4
160-169	852	0	0	1.0	1242	0	0	4.5	574	1	17	13.9	4	5.3	4.8
170-179	554	0	0	0.9	848	1	12	5.1	470	1	21	16.8	11	6.3	5.2
180-189	398	0	0	0.8	624	0	0	5.7	302	1	33	20.3	8	7.4	5.7
190-300	426	0	0	0.7	848	0	0	6.3	470	1	21	24.5	6	8.6	6.2
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01052	-0.01491	0.01137	0.02959	0.93	-0.50	-7.45549	-6.01924
55-64	0.01951	0.01098	0.00660	0.01470	2.96	0.75	-8.07083	-8.81333
65-74	0.01936	0.01904	0.01160	0.01344	1.67	1.42	-8.33110	-9.02666
AVERAGE	0.01766	0.01231	0.00512	0.00940	3.45	1.31		
STANDARDIZED	0.39908	0.30986	0.11838	0.24312	3.37	1.27		
45-74, UNIVARIATE	0.01935	0.01605	0.00501	0.00808	3.86	1.99	-8.34742	-9.48797
45-74, BIVARIATE	0.01783	0.00848	0.00516	0.00943	3.45	0.90		
45-74, MULTIVARIATE	0.01123	0.00349	0.00579	0.01039	1.94	0.34		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.49 FOR MEN, 1.10 FOR WOMEN.

TABLE 7-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
020-069	830	0	0	9.4	732	1	14	17.7	354	1	28	8.2	10	11.4	11.4
070-074	1666	0	0	10.0	1290	6	47	19.7	520	0	0	10.5	17	13.0	12.9
075-079	1352	2	15	10.7	964	0	0	22.0	322	0	0	13.5	8	14.8	14.7
080-084	3256	4	12	11.5	2126	4	19	24.5	702	0	0	17.3	13	16.8	16.7
085-089	1796	5	28	12.3	1004	3	30	27.2	332	0	0	22.2	26	19.0	19.0
090-094	1858	3	16	13.1	1322	3	23	30.3	402	2	50	28.5	22	21.6	21.6
095-099	888	1	11	14.0	590	1	17	33.8	138	1	72	36.6	19	24.6	24.6
100-104	930	1	11	15.0	656	4	61	37.6	160	2	125	47.0	40	27.9	28.0
105-109	282	0	0	16.1	170	0	0	41.9	34	0	0	60.3	0	31.7	31.8
110-160	464	0	0	17.2	476	3	63	46.6	136	1	74	77.2	37	35.9	36.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
020-069	1596	1	6	3.6	874	0	0	2.1	402	0	0	6.9	3	2.9	3.1
070-074	2778	0	0	2.6	1668	0	0	2.4	588	0	0	8.0	0	3.2	3.3
075-079	1952	1	5	1.9	1212	2	17	2.8	424	1	24	9.3	11	3.5	3.6
080-084	4034	1	2	1.4	2870	0	0	3.3	1100	1	9	10.8	2	3.8	3.8
085-089	2040	0	0	1.0	1566	0	0	3.8	490	1	20	12.6	2	4.1	4.1
090-094	2172	0	0	0.7	2014	2	10	4.4	758	1	13	14.7	6	4.5	4.4
095-099	826	0	0	0.5	826	0	0	5.0	320	1	31	17.1	5	4.9	4.8
100-104	834	0	0	0.4	962	0	0	5.8	346	0	0	19.8	0	5.4	5.1
105-109	270	0	0	0.3	288	0	0	6.7	68	0	0	23.0	0	5.9	5.5
110-160	684	0	0	0.2	708	1	14	7.8	232	1	43	26.8	12	6.5	5.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01342	-0.06487	0.02027	0.05672	0.66	-1.14	-7.18088	-2.85129
55-64	0.02162	0.02909	0.01418	0.03010	1.53	0.97	-7.09910	-9.73681
65-74	0.05026	0.03025	0.02159	0.02789	2.33	1.08	-9.80904	-8.62694
AVERAGE	0.02596	0.01883	0.01023	0.01924	2.54	0.98		
STANDARDIZED	0.32332	0.23969	0.12958	0.24828	2.50	0.97		
45-74, UNIVARIATE	0.02555	0.01785	0.01051	0.01900	2.43	0.94	-7.80257	-8.65969
45-74, BIVARIATE	0.02583	0.01416	0.01030	0.01956	2.51	0.72		
45-74, MULTIVARIATE	0.01682	0.01433	0.01044	0.01985	1.61	0.72		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.74 FOR MEN, 2.46 FOR WOMEN.

TABLE 7-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
096-189	1564	0	0	5.9	1152	1	9	22.0	406	1	25	38.3	6	13.6	13.4
190-204	1344	2	15	7.0	992	0	0	23.3	382	3	79	31.4	18	14.9	14.7
205-219	1962	0	0	8.3	1212	6	50	24.7	404	0	0	25.8	17	16.3	16.1
220-234	1994	4	20	9.9	1464	6	41	26.3	478	1	21	21.2	28	17.8	17.7
235-249	1670	3	18	11.7	1294	3	23	27.9	370	1	27	17.4	21	19.5	19.5
250-264	1484	1	7	13.9	1154	3	26	29.6	350	0	0	14.2	13	21.3	21.4
265-279	1060	1	9	16.5	764	2	26	31.4	268	0	0	11.7	14	23.3	23.5
280-294	718	1	14	19.5	480	2	42	33.3	230	1	43	9.6	28	25.6	25.8
295-309	418	2	48	23.2	312	2	64	35.4	90	0	0	7.9	49	28.0	28.3
310-1124	602	2	33	27.5	338	0	0	37.6	102	0	0	6.4	19	30.6	31.1
UNKNOWN	506	0			168	0			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
096-189	1704	0	0	1.1	554	0	0	3.3	154	0	0	4.6	0	2.3	2.3
190-204	1656	0	0	1.2	702	0	0	3.4	206	0	0	5.3	0	2.5	2.5
205-219	2026	0	0	1.4	1030	1	10	3.5	352	0	0	6.1	3	2.8	2.8
220-234	2416	0	0	1.5	1580	0	0	3.6	526	1	19	7.0	2	3.1	3.1
235-249	2174	0	0	1.7	1558	1	6	3.8	604	1	17	8.1	5	3.4	3.4
250-264	1826	1	5	1.8	1702	0	0	3.9	632	0	0	9.3	2	3.8	3.7
265-279	1522	0	0	2.0	1608	1	6	4.0	664	0	0	10.7	3	4.1	4.1
280-294	1130	0	0	2.3	1298	1	8	4.2	476	1	21	12.2	7	4.6	4.6
295-309	734	1	14	2.5	940	1	11	4.3	350	1	29	14.1	15	5.0	5.0
310-1124	1292	1	8	2.8	1698	0	0	4.5	708	1	14	16.2	5	5.5	5.6
UNKNOWN	706	0			318	0			56	1					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01140	0.00681	0.00331	0.00339	3.45	2.01	-8.81759	-9.65831
55-64	0.00400	0.00233	0.00471	0.00945	0.85	0.25	-6.15401	-7.75424
65-74	-0.01324	0.00928	0.00982	0.00922	-1.35	1.01	-2.44921	-8.67852
AVERAGE	0.00739	0.00662	0.00261	0.00301	2.83	2.20		
STANDARDIZED	0.30266	0.30503	0.10885	0.13871	2.78	2.20		
45-74, UNIVARIATE	0.00605	0.00648	0.00299	0.00270	2.02	2.40	-7.01159	-8.86223
45-74, BIVARIATE	0.00629	0.00664	0.00303	0.00355	2.08	1.87		
45-74, MULTIVARIATE	0.00611	0.00654	0.00307	0.00354	1.99	1.85		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 6.40 FOR MEN, 0.29 FOR WOMEN.

TABLE 7-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
062-179	1802	0	0	7.2	1180	1	8	19.4	148	0	0	24.6	3	13.0	13.1
180-199	852	2	23	8.1	594	0	0	21.0	74	0	0	24.2	13	14.2	14.3
200-219	1076	1	9	9.1	744	1	13	22.7	224	0	0	23.8	10	15.5	15.6
220-239	1340	1	7	10.3	992	7	71	24.6	280	2	71	23.4	38	16.9	17.0
240-259	1820	4	22	11.7	1386	3	22	26.6	630	2	32	23.0	23	18.5	18.5
260-279	1826	1	5	13.2	1452	4	28	28.8	592	1	17	22.6	16	20.2	20.2
280-299	1564	3	19	14.9	1158	4	35	31.2	460	0	0	22.2	22	22.0	22.0
300-319	1056	1	9	16.9	818	1	12	33.8	374	2	53	21.9	18	24.0	23.9
320-339	774	0	0	19.0	408	2	49	36.6	210	0	0	21.5	14	26.3	26.1
340-968	644	3	47	21.5	406	2	49	39.6	86	0	0	21.2	44	28.7	28.4
UNKNOWN	568	0			192	0			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
062-179	2128	0	0	0.9	1076	0	0	3.6	90	0	0	0.7	0	1.5	1.6
180-199	896	0	0	1.1	614	1	16	3.7	68	0	0	1.0	6	1.8	1.9
200-219	1608	0	0	1.2	992	0	0	3.7	202	0	0	1.4	0	2.2	2.2
220-239	1662	0	0	1.4	1020	0	0	3.8	250	0	0	2.1	0	2.6	2.6
240-259	2192	1	5	1.6	1378	1	7	3.9	500	0	0	3.2	5	3.0	3.1
260-279	2300	0	0	1.9	1770	1	6	4.0	734	0	0	4.7	2	3.6	3.6
280-299	1914	1	5	2.1	1760	0	0	4.0	804	0	0	7.0	2	4.2	4.2
300-319	1648	0	0	2.5	1676	0	0	4.1	886	1	11	10.3	2	5.0	5.0
320-339	1006	1	10	2.8	1100	2	18	4.2	548	2	36	15.3	19	5.9	5.8
340-968	1022	0	0	3.3	1242	0	0	4.3	576	2	35	22.6	7	7.0	6.8
UNKNOWN	810	0			360	0			70	1					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00613	0.00697	0.00359	0.00570	1.71	1.22	-7.59094	-9.77161
55-64	0.00398	0.00093	0.00325	0.00754	1.23	0.12	-6.22432	-7.39117
65-74	-0.00084	0.01965	0.00828	0.00734	-0.10	2.68	-5.16808	-12.27266
AVERAGE	0.00450	0.00889	0.00231	0.00386	1.95	2.30		
STANDARDIZED	0.25352	0.53737	0.13581	0.21645	1.87	2.48		
45-74, UNIVARIATE	0.00442	0.00835	0.00231	0.00299	1.91	2.80	-6.70284	-9.49813
45-74, BIVARIATE	0.00431	0.00805	0.00238	0.00397	1.81	2.02		
45-74, MULTIVARIATE	0.00230	0.00551	0.00289	0.00656	0.79	0.84		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.65 FOR MEN, 3.38 FOR WOMEN.

TABLE 7-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
029-059	372	1	27	12.2	274	3	109	25.1	68	0	0	18.4	56	17.1	17.4
060-069	2400	3	13	12.2	1474	2	14	25.8	518	2	39	19.6	16	17.7	17.9
070-079	4326	7	16	12.3	2844	6	21	26.5	908	0	0	20.8	16	18.4	18.5
080-089	3140	1	3	12.3	2286	8	35	27.2	694	1	14	22.1	16	19.0	19.0
090-099	1456	2	14	12.4	1116	3	27	27.9	452	1	22	23.5	20	19.7	19.6
100-109	590	1	17	12.4	486	1	21	28.6	154	1	65	24.9	24	20.4	20.2
110-119	274	0	0	12.5	252	1	40	29.4	64	1	156	26.5	34	21.2	20.8
120-129	114	0	0	12.5	136	0	0	30.2	58	0	0	28.1	0	21.9	21.4
130-139	70	0	0	12.6	70	0	0	31.0	52	0	0	29.8	0	22.7	22.1
140-524	252	1	40	12.6	250	1	40	31.8	106	1	94	31.7	49	23.6	22.7
UNKNOWN	328	0			142	0			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
029-059	348	0	0	0.9	274	0	0	24.3	72	0	0	6.5	0	2.7	2.9
060-069	2964	0	0	1.1	1696	4	24	9.9	556	1	18	7.3	10	3.0	3.1
070-079	5796	0	0	1.3	4048	0	0	4.0	1462	1	7	8.3	1	3.3	3.4
080-089	4372	2	5	1.6	3560	1	3	1.6	1242	0	0	9.5	3	3.7	3.8
090-099	1792	0	0	1.9	1598	0	0	0.7	626	2	32	10.8	5	4.1	4.1
100-109	686	0	0	2.3	714	0	0	0.3	326	0	0	12.3	0	4.6	4.5
110-119	328	0	0	2.8	296	0	0	0.1	124	0	0	13.9	0	5.1	4.9
120-129	112	0	0	3.4	218	0	0	0.0	110	0	0	15.8	0	5.7	5.4
130-139	48	0	0	4.2	62	0	0	0.0	40	0	0	18.0	0	6.3	5.9
140-524	186	1	54	5.1	284	0	0	0.0	124	1	81	20.5	34	7.1	6.5
UNKNOWN	554	0			238	0			46	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.00042	0.01950	0.01031	0.00701	0.04	2.78	-6.03879	-9.72179
55-64	0.00262	-0.09044	0.00642	0.04056	0.41	-2.23	-5.43226	-0.34773
65-74	0.00606	0.01284	0.00747	0.00674	0.81	1.90	-5.93302	-7.35704
AVERAGE	0.00342	0.01453	0.00440	0.00483	0.78	3.01		
STANDARDIZED	0.08601	0.32677	0.11780	0.10492	0.73	3.11		
45-74, UNIVARIATE	0.00358	0.01080	0.00433	0.00509	0.83	2.12	-5.87247	-8.12692
45-74, BIVARIATE	0.00298	0.00906	0.00443	0.00542	0.67	1.67		
45-74, MULTIVARIATE	0.00213	0.00678	0.00462	0.00567	0.46	1.20		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.22 FOR MEN, 7.26 FOR WOMEN.

TABLE 7-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
065-099	1168	1	9	11.3	836	3	36	13.1	320	0	0	19.4	17	12.8	12.6
100-104	838	0	0	11.5	536	2	37	15.1	194	0	0	20.0	13	13.8	13.6
105-109	1228	2	16	11.6	772	0	0	17.3	292	1	34	20.7	13	14.9	14.7
110-114	1438	2	14	11.8	1130	2	18	19.8	358	0	0	21.4	14	16.1	15.9
115-119	1680	1	6	11.9	1288	3	23	22.7	410	2	49	22.2	18	17.3	17.3
120-124	1828	4	22	12.1	1350	1	7	26.1	422	2	47	22.9	19	18.7	18.7
125-129	1510	1	7	12.2	1040	2	19	29.9	320	1	31	23.7	14	20.2	20.2
130-134	1276	1	8	12.4	918	1	11	34.3	326	0	0	24.6	8	21.7	21.9
135-139	756	2	26	12.5	534	3	56	39.3	178	1	56	25.4	41	23.5	23.7
140-272	1598	2	13	12.7	924	8	87	45.1	280	0	0	26.3	36	25.3	25.6
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
065-099	2042	1	5	1.4	1046	0	0	2.9	472	0	0	13.8	3	3.4	3.7
100-104	1542	0	0	1.5	840	0	0	3.0	306	1	33	13.6	4	3.5	3.7
105-109	1948	0	0	1.5	1250	0	0	3.2	348	0	0	13.4	0	3.6	3.8
110-114	2040	0	0	1.6	1288	1	8	3.3	430	0	0	13.2	3	3.7	3.9
115-119	1926	0	0	1.7	1446	0	0	3.5	522	1	19	13.0	3	3.8	3.9
120-124	1670	0	0	1.7	1474	1	7	3.7	490	1	20	12.8	6	4.0	4.0
125-129	1364	0	0	1.8	1184	0	0	3.8	436	1	23	12.6	3	4.1	4.1
130-134	1042	1	10	1.9	974	1	10	4.0	322	1	31	12.4	13	4.2	4.1
135-139	862	0	0	2.0	754	1	13	4.2	328	0	0	12.2	5	4.3	4.2
140-272	2750	1	4	2.0	2732	1	4	4.4	1074	1	9	12.0	5	4.5	4.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00245	0.00777	0.01546	0.02321	0.16	0.33	-6.32594	-8.91640
55-64	0.02759	0.00952	0.01204	0.01722	2.29	0.55	-8.63053	-8.38438
65-74	0.00679	-0.00307	0.02341	0.01839	0.29	-0.17	-6.21067	-5.59156
AVERAGE	0.01650	0.00458	0.00880	0.01105	1.88	0.41		
STANDARDIZED	0.26267	0.10468	0.13770	0.24791	1.91	0.42		
45-74, UNIVARIATE	0.01519	0.00623	0.00877	0.01093	1.73	0.57	-7.44579	-7.90473
45-74, BIVARIATE	0.01589	0.00343	0.00880	0.01131	1.81	0.30		
45-74, MULTIVARIATE	0.01439	0.00527	0.00904	0.01207	1.59	0.44		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.85 FOR MEN, 0.27 FOR WOMEN.

TABLE 7-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
12-31	150	1	67	7.9	274	2	73	36.6	208	0	0	21.7	47	24.1	19.6
32-35	144	0	0	8.5	296	0	0	34.3	218	0	0	21.9	0	23.0	19.4
36-39	450	0	0	9.0	542	3	55	32.2	326	1	31	22.2	30	21.9	19.3
40-43	754	0	0	9.7	1008	4	40	30.2	506	2	40	22.5	26	20.8	19.1
44-47	1618	1	6	10.4	1552	4	26	28.3	544	2	37	22.7	19	19.9	18.9
48-51	1678	2	12	11.1	1480	3	20	26.5	492	1	20	23.0	16	18.9	18.7
52-55	2504	6	24	11.8	1626	3	18	24.9	396	1	25	23.2	22	18.0	18.6
56-59	2352	1	4	12.7	1238	2	16	23.3	236	0	0	23.5	8	17.1	18.4
60-63	1768		11	13.6	764	1	13	21.9	104	0	0	23.8	11	16.3	18.2
64-85	1898	1	16	14.5	522	3	57	20.5	56	0	0	24.0	24	15.5	18.1
UNKNOWN	6	0			28	0			14	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
04-19	82	0	0	4.4	256	0	0	17.4	260	2	77	41.6	33	23.5	16.2
20-23	190	0	0	3.7	374	0	0	11.7	282	0	0	27.1	0	15.2	11.7
24-27	386	0	0	3.2	830	2	24	7.8	562	2	36	17.6	22	9.8	8.5
28-31	958	0	0	2.7	1712	0	0	5.3	944	0	0	11.5	0	6.3	6.1
32-35	2108	0	0	2.2	2794	3	11	3.5	1144	0	0	7.5	5	4.1	4.4
36-39	2958	2	7	1.9	2724	0	0	2.4	800	1	13	4.9	5	2.6	3.2
40-43	4028	1	2	1.6	2304	0	0	1.6	458	1	22	3.2	3	1.7	2.3
44-47	3212	0	0	1.3	1250	0	0	1.1	200	0	0	2.1	0	1.1	1.7
48-51	2022	0	0	1.1	498	0	0	0.7	60	0	0	1.3	0	0.7	1.2
52-77	1226	0	0	1.0	234	0	0	0.5	18	0	0	0.9	0	0.5	0.9
UNKNOWN	16	0			12	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01689	-0.04245	0.02815	0.07441	0.60	-0.57	-6.95485	-6.26479
55-64	-0.01619	-0.09977	0.02162	0.05204	-0.75	-1.92	-4.42380	-3.86321
65-74	0.00286	-0.10770	0.04187	0.04999	0.07	-2.15	-5.52144	-2.84279
AVERAGE	-0.00294	-0.09222	0.01587	0.03244	-0.19	-2.84		
STANDARDIZED	-0.02612	-0.68535	0.14401	0.24107	-0.18	-2.84		
45-74, UNIVARIATE	-0.01226	-0.10954	0.01497	0.02920	-0.82	-3.75	-4.96084	-3.38440
45-74, BIVARIATE	-0.00229	-0.08117	0.01609	0.03320	-0.14	-2.44		
45-74, MULTIVARIATE	0.00904	-0.09810	0.01634	0.03500	0.55	-2.80		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.89 FOR MEN, 0.56 FOR WOMEN.

TABLE 7-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
37-63	2066	1	5	7.3	1766	3	17	13.1	516	0	0	18.3	9	10.4	10.5
64-67	1288	0	0	8.2	962	1	10	15.5	364	1	27	19.4	8	12.0	12.1
68-71	1788	3	17	9.3	1280	1	8	18.4	472	1	21	20.6	14	13.8	13.9
72-75	2534	3	12	10.5	1746	5	29	21.8	606	2	33	21.9	20	15.9	16.0
76-79	720	2	28	11.9	442	1	23	25.8	118	0	0	23.2	23	18.3	18.4
80-83	1616	1	6	13.4	1074	1	9	30.6	344	1	29	24.6	10	21.1	21.1
84-87	970	2	21	15.2	618	2	32	36.2	188	1	53	26.0	28	24.3	24.2
88-91	946	2	21	17.2	532	2	38	42.8	168	0	0	27.6	24	28.0	27.8
92-95	498	0	0	19.4	340	4	118	50.7	114	1	88	29.3	53	32.2	32.0
96-170	896	2	22	22.0	570	5	88	60.0	210	0	0	31.0	42	37.0	36.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
37-63	1692	0	0	0.9	1540	0	0	2.1	480	0	0	3.2	0	1.6	1.8
64-67	1514	0	0	1.1	994	0	0	2.4	328	0	0	4.1	0	1.9	2.1
68-71	2248	1	4	1.2	1608	0	0	2.7	570	1	18	5.2	5	2.3	2.4
72-75	3432	0	0	1.4	2504	1	4	3.1	758	0	0	6.5	1	2.8	2.9
76-79	966	0	0	1.6	792	0	0	3.5	218	0	0	8.3	0	3.3	3.4
80-83	2286	0	0	1.8	1736	0	0	4.0	748	2	27	10.5	4	4.0	4.0
84-87	1544	1	6	2.1	1038	2	19	4.5	438	0	0	13.3	10	4.7	4.7
88-91	1236	0	0	2.4	970	2	21	5.1	398	0	0	16.9	8	5.6	5.6
92-95	772	1	13	2.7	630	0	0	5.8	256	0	0	21.4	6	6.7	6.6
96-170	1496	0	0	3.1	1176	0	0	6.5	534	3	56	27.1	9	8.0	7.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.03083	0.03267	0.01799	0.04066	1.71	0.80	-8.44416	-10.59551
55-64	0.04251	0.03106	0.01161	0.02664	3.66	1.17	-8.57711	-9.68002
65-74	0.01466	0.05941	0.02587	0.02527	0.57	2.35	-6.51324	-11.03549
AVERAGE	0.03603	0.04373	0.00913	0.01671	3.95	2.62		
STANDARDIZED	0.46421	0.55742	0.11766	0.21401	3.95	2.60		
45-74, UNIVARIATE	0.03537	0.04426	0.00938	0.01534	3.77	2.88	-8.36439	-10.77011
45-74, BIVARIATE	0.03485	0.04126	0.00917	0.01565	3.80	2.64		
45-74, MULTIVARIATE	0.02489	0.03410	0.00967	0.01826	2.57	1.87		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.08 FOR MEN, 0.69 FOR WOMEN.

TABLE 7-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NONE	5046	1	2	5.0	4520	8	18	21.8	1868	3	16	16.5	10	13.4	12.1
UNDER 20	1884	3	16	8.3	1474	7	47	26.2	544	2	37	23.3	31	17.2	16.6
20	3092	6	19	14.0	1810	5	28	31.4	368	0	0	32.9	21	22.1	22.7
OVER 20	3232	6	19	23.5	1486	5	34	37.6	310	2	65	46.4	26	28.5	31.1
UNKNOWN	68	0			40	0			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NONE	9626	1	1	0.6	9114	4	4	4.0	3778	4	11	9.8	4	3.4	2.8
UNDER 20	4042	0	0	1.5	2244	0	0	3.7	626	0	0	12.5	0	4.0	4.2
20	2434	1	4	3.6	1080	1	9	3.3	220	1	45	16.1	8	4.7	6.2
OVER 20	1016	1	10	8.6	502	0	0	3.0	82	0	0	20.6	6	5.6	9.3
UNKNOWN	68	0			48	0			22	1					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.51876	0.86058	0.22889	0.52301	2.27	1.65	-6.91255	-8.94868
55-64	0.18261	-0.09355	0.16726	0.59405	1.09	-0.16	-5.42957	-7.12471
65-74	0.34611	0.24974	0.31886	0.58590	1.09	0.43	-5.70976	-6.23564
AVERAGE	0.30670	0.38378	0.12435	0.32612	2.47	1.18		
STANDARDIZED	0.34729	0.26510	0.14223	0.25028	2.44	1.06		
45-74, UNIVARIATE	0.25271	0.17186	0.11875	0.29235	2.13	0.59	-5.92072	-7.30398
45-74, BIVARIATE	0.31507	0.40331	0.12170	0.29297	2.59	1.38		
45-74, MULTIVARIATE	0.34769	0.43512	0.12303	0.29478	2.83	1.48		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.42 FOR MEN, 1.53 FOR WOMEN.

TABLE 7-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	7008	5	7	9.1	4286	7	16	18.2	1214	1	8	9.8	10	12.2	12.6
BORDER	4040	8	20	13.2	3000	10	33	28.0	1212	3	25	21.6	25	20.0	20.0
DEFINITE	2274	3	13	19.1	2044	8	39	43.0	674	3	45	47.4	28	32.6	31.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	9764	2	2	2.2	4858	0	0	2.3	1136	0	0	2.3	1	2.0	2.8
BORDER	4872	1	2	1.3	4646	4	9	3.8	1908	2	10	7.7	6	4.0	4.2
DEFINITE	2550	0	0	0.7	3484	1	3	6.1	1684	4	24	25.3	6	8.0	6.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.37439	-0.55743	0.30998	0.98000	1.21	-0.57	-6.31243	-7.71014
55-64	0.43304	0.48435	0.24650	0.57261	1.76	0.85	-5.61227	-7.67594
65-74	0.79060	1.19413	0.51356	0.73319	1.54	1.63	-6.23123	-7.66844
AVERAGE	0.45735	0.52394	0.18061	0.40991	2.53	1.28		
STANDARDIZED	0.35368	0.39991	0.13962	0.31705	2.53	1.26		
45-74, UNIVARIATE	0.49304	0.68858	0.17853	0.33828	2.76	2.04	-6.01283	-7.81000
45-74, BIVARIATE	0.46509	0.41307	0.17988	0.35546	2.59	1.16		
45-74, MULTIVARIATE	0.28941	0.25039	0.19181	0.37628	1.51	0.67		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.50 FOR MEN, 2.06 FOR WOMEN.

TABLE 7-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	11284	12	11	10.8	7190	14	19	18.4	2068	4	19	19.0	15	14.3	14.8
POSSIBLE	994	2	20	15.3	986	2	20	36.3	448	1	22	25.1	21	25.3	24.9
DEFINITE	1038	2	19	21.6	1152	9	78	71.3	584	2	34	33.2	47	44.8	42.0
UNKNOWN	6	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	13924	2	1	1.3	8274	2	2	2.5	2264	2	9	8.6	2	2.4	3.1
POSSIBLE	1564	0	0	2.5	2062	1	5	4.4	884	1	11	12.6	4	4.9	4.7
DEFINITE	1692	1	6	4.8	2644	2	8	7.7	1580	3	19	18.6	10	10.0	7.3
UNKNOWN	6	0			8	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.34492	0.65069	0.34926	0.66279	0.99	0.98	-6.13115	-8.25704
55-64	0.68318	0.57094	0.22237	0.49431	3.07	1.16	-5.60245	-7.61017
65-74	0.27900	0.38860	0.43547	0.46107	0.64	0.84	-5.56695	-6.36660
AVERAGE	0.53763	0.50987	0.17227	0.30052	3.12	1.70		
STANDARDIZED	0.35467	0.40756	0.11505	0.23660	3.08	1.72		
45-74, UNIVARIATE	0.57304	0.71049	0.16764	0.29142	3.42	2.44	-5.85244	-7.63719
45-74, BIVARIATE	0.52540	0.43334	0.17143	0.30667	3.06	1.41		
45-74, MULTIVARIATE	0.38557	0.30764	0.18919	0.34005	2.04	0.90		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.09 FOR MEN, 0.13 FOR WOMEN.

TABLE 7-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	12886	16	12	******	8738	18	21	20.4	2896	4	14	16.6	15	15.7	15.9
POSSIBLE	252	0	0	******	358	2	56	65.5	82	2	244	49.7	58	43.7	42.2
DEFINITE	184	0	0	******	234	5	214	206.3	122	1	82	147.2	111	120.2	110.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	16880	3	2	******	12332	5	4	******	4394	4	9	9.7	4	3.6	3.8
POSSIBLE	196	0	0	******	378	0	0	******	174	1	57	27.7	13	8.8	7.2
DEFINITE	110	0	0	******	278	0	0	******	160	1	63	78.7	18	21.4	13.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	*******	*******	*******	*******	****	****	********	********
55-64	1.17585	*******	0.25478	*******	4.62	****	-5.49748	********
65-74	1.10574	1.05399	0.43886	0.50186	2.52	2.10	-5.70680	-6.24389
AVERAGE	1.15818	1.05399	0.22034	0.50186	5.26	2.10		
STANDARDIZED	0.43239	0.42333	0.08227	0.20157	5.26	2.10		
45-74, UNIVARIATE	1.02834	0.88919	0.20767	0.46217	4.95	1.92	-5.76056	-7.22955
45-74, BIVARIATE	0.97882	0.64254	0.21015	0.46982	4.66	1.37		
45-74, MULTIVARIATE	0.84523	0.63482	0.24094	0.51219	3.51	1.24		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (1 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.02 FOR MEN.

TABLE 7-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	13178	15	11	11.4	9118	21	23	23.0	2946	7	24	23.8	17	17.0	17.3
YES	144	1	69	69.4	212	4	189	188.7	154	0	0	0.0	98	98.0	85.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	17092	3	2	1.8	12782	4	3	3.1	4660	6	13	12.9	4	3.8	3.8
YES	94	0	0	0.0	206	1	49	48.5	68	0	0	0.0	27	27.2	20.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.82015	********	1.03967	*******	1.75	*****	-6.08283	********
55-64	2.13704	2.75075	0.55466	1.12248	3.85	2.45	-5.37572	-7.37573
65-74	********	********	*******	*******	*****	*****	********	********
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.76648	1.98136	0.47680	1.04041	3.70	1.90	-5.67850	-7.19085
45-74, BIVARIATE	1.61796	1.67604	0.48617	1.04407	3.33	1.61		
45-74, MULTIVARIATE	1.75485	1.95207	0.49185	1.06050	3.57	1.84		

TABLE 7-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	12722	15	12	11.8	8726	22	25	25.2	2816	5	18	17.8	17	17.3	17.5
YES	600	1	17	16.7	604	3	50	49.7	284	2	70	70.4	40	40.3	37.3
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	16574	2	1	1.2	12166	4	3	3.3	4298	4	9	9.3	3	3.0	3.3
YES	612	1	16	16.3	822	1	12	12.2	430	2	47	46.5	21	21.5	16.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.34709	2.60874	1.03449	1.22613	0.34	2.13	-6.04753	-8.32905
55-64	0.68299	1.31014	0.61835	1.11920	1.10	1.17	-5.28482	-7.32630
65-74	1.38843	1.61646	0.84134	0.86900	1.65	1.86	-5.63693	-6.28460
AVERAGE	0.82056	1.76550	0.44890	0.59893	1.83	2.95		
STANDARDIZED	0.19077	0.43204	0.11052	0.14309	1.73	3.02		
45-74, UNIVARIATE	0.85028	1.96234	0.43808	0.59257	1.94	3.31	-5.66246	-7.40908
45-74, BIVARIATE	0.76225	1.61245	0.44094	0.60174	1.73	2.68		
45-74, MULTIVARIATE	0.44150	1.58818	0.44529	0.62029	0.99	2.56		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.71 FOR MEN, 0.67 FOR WOMEN.

TABLE 7-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	13076	15	11	11.5	8976	24	27	26.7	2956	6	20	20.3	18	18.0	18.1
YES	204	1	49	49.0	322	1	31	31.1	136	1	74	73.5	45	45.3	40.4
UNKNOWN	42	0			32	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	16602	3	2	1.8	12604	5	4	4.0	4574	5	11	10.9	4	3.8	3.8
YES	542	0	0	0.0	344	0	0	0.0	138	1	72	72.5	10	9.8	10.5
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.45992	********	1.03765	*******	1.41	*****	-6.07504	********
55-64	0.15057	********	1.02379	*******	0.15	*****	-5.22575	********
65-74	1.29792	1.90386	1.08732	1.10233	1.19	1.73	-5.50262	-6.12337
AVERAGE	0.95189	*******	0.60538	*******	1.57	****		
STANDARDIZED	0.15598	*******	0.09533	*******	1.64	****		
45-74, UNIVARIATE	0.92913	0.93239	0.59890	1.03872	1.55	0.90	-5.62354	-7.16876
45-74, BIVARIATE	0.80696	1.01575	0.60243	1.04020	1.34	0.98		
45-74, MULTIVARIATE	0.26987	0.60190	0.62106	1.15026	0.43	0.52		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.95 FOR MEN.

TABLE 7-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	12968	15	12	11.6	9004	24	27	26.7	2954	5	17	16.9	18	17.7	17.8
YES	316	1	32	31.6	294	1	34	34.0	138	2	145	144.9	53	53.5	50.0
UNKNOWN	38	0			32	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	16964	2	1	1.2	12728	5	4	3.9	4626	5	11	10.8	3	3.5	3.6
YES	182	1	55	54.9	224	0	0	0.0	86	1	116	116.3	41	40.7	34.4
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.01048	3.85251	1.03595	1.22932	0.98	3.13	-6.06673	-8.35232
55-64	0.24527	********	1.02408	*******	0.24	*****	-5.22888	********
65-74	2.17339	2.39703	0.84593	1.10645	2.57	2.17	-5.68494	-6.13470
AVERAGE	1.28325	*******	0.55193	*******	2.33	****		
STANDARDIZED	0.21362	*******	0.09806	*******	2.18	****		
45-74, UNIVARIATE	1.11559	2.46065	0.52489	0.76648	2.13	3.21	-5.64279	-7.26467
45-74, BIVARIATE	1.04259	2.26803	0.52657	0.77024	1.98	2.94		
45-74, MULTIVARIATE	0.93863	2.13566	0.53562	0.82440	1.75	2.59		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.20 FOR MEN.

TABLE 7-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	12930	15	12	11.6	8872	24	27	27.1	2888	6	21	20.8	18	18.2	18.3
YES	392	1	26	25.5	458	1	22	21.8	212	1	47	47.2	28	28.2	25.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	16868	2	1	1.2	12512	5	4	4.0	4430	5	11	11.3	4	3.5	3.7
YES	318	1	31	31.4	476	0	0	0.0	298	1	34	33.6	18	18.3	12.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.79079	3.28405	1.03535	1.22737	0.76	2.68	-6.06379	-8.34664
55-64	-0.21532	********	1.02288	*******	-0.21	*****	-5.21403	********
65-74	0.82529	1.09410	1.08484	1.09873	0.76	1.00	-5.47925	-6.09131
AVERAGE	0.45033	********	0.60430	*******	0.75	*****		
STANDARDIZED	0.09314	********	0.12267	*******	0.76	*****		
45-74, UNIVARIATE	0.44021	1.64395	0.59794	0.76500	0.74	2.15	-5.61069	-7.24975
45-74, BIVARIATE	0.33921	1.20204	0.60028	0.77444	0.57	1.55		
45-74, MULTIVARIATE	0.26868	1.04519	0.60757	0.82601	0.44	1.27		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.65 FOR MEN.

TABLE 7-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: SUDDEN DEATH FROM CORONARY HEART DISEASE
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CORONARY HEART DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13322	16	12		9330	25	27		3100	7	23		19		
NO	12562	15	12	11.9	8596	24	28	27.9	2774	5	18	18.0	18	18.4	18.5
YES	760	1	13	13.2	734	1	14	13.6	326	2	61	61.3	22	22.0	20.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17186	3	2		12988	5	4		4728	6	13		4		
NO	16630	2	1	1.2	12194	5	4	4.1	4280	5	12	11.7	4	3.6	3.8
YES	556	1	18	18.0	794	0	0	0.0	448	1	22	22.3	11	11.1	7.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.09731	2.70841	1.03415	1.22627	0.09	2.21	-6.03484	-8.33243
55-64	-0.72038	*******	1.02207	*******	-0.70	****	-5.18225	********
65-74	1.23359	0.64961	0.84079	1.09770	1.47	0.59	-5.62185	-6.05678
AVERAGE	0.34666	*******	0.54991	*******	0.63	****		
STANDARDIZED	0.07713	*******	0.14808	*******	0.52	****		
45-74, UNIVARIATE	0.17921	1.12272	0.52337	0.76453	0.34	1.47	-5.60195	-7.22863
45-74, BIVARIATE	0.09938	0.71749	0.52504	0.77268	0.19	0.93		
45-74, MULTIVARIATE	-0.01834	0.61164	0.52918	0.80764	-0.03	0.76		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.26 FOR MEN.

TABLE 8-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
074-109	858	0	0	7.5	578	1	17	9.1	164	1	61	41.8	13	11.1	13.1
110-119	2368	4	17	9.9	1284	2	16	12.3	342	2	58	48.2	20	14.5	16.6
120-129	3066	1	3	13.1	1908	3	16	16.6	508	1	20	55.5	9	19.0	21.1
130-139	3064	5	16	17.3	1972	4	20	22.3	690	3	43	63.9	21	24.9	26.6
140-149	2030	4	20	22.9	1566	2	13	30.0	616	4	65	73.6	24	32.6	33.7
150-159	1224	5	41	30.2	1082	6	55	40.4	464	5	108	84.7	58	42.7	42.6
160-169	658	4	61	39.9	734	6	82	54.3	336	5	149	97.4	87	55.8	53.8
170-179	360	2	56	52.7	496	1	20	72.9	200	4	200	112.1	66	73.0	68.0
180-189	226	0	0	69.5	300	3	100	97.9	142	1	70	128.8	60	95.3	85.7
190-300	214	3	140	91.6	434	8	184	131.1	244	3	123	148.1	157	124.2	108.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
074-109	1580	0	0	4.2	512	0	0	6.5	104	0	0	26.3	0	7.4	9.2
110-119	3060	3	10	5.1	1270	0	0	8.5	282	1	35	32.1	9	9.5	11.5
120-129	3494	3	9	6.2	1852	3	16	11.0	406	1	25	39.2	12	12.3	14.3
130-139	3482	1	3	7.5	2322	4	17	14.2	708	1	14	47.9	9	15.9	17.8
140-149	2138	1	5	9.2	1998	5	25	18.4	834	6	72	58.4	24	20.6	22.2
150-159	1526	3	20	11.2	1810	6	33	23.8	790	8	101	71.2	41	26.7	27.7
160-169	890	0	0	13.7	1340	1	7	30.7	630	4	63	86.9	17	34.5	34.4
170-179	562	1	18	16.7	946	4	42	39.8	514	4	78	105.8	45	44.5	42.9
180-189	422	1	24	20.4	670	0	0	51.4	366	6	164	128.8	48	57.5	53.3
190-300	458	2	44	24.8	952	12	126	66.4	542	11	203	156.6	128	74.2	66.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02805	0.01991	0.00709	0.00720	3.96	2.76	-9.44971	-9.18171
55-64	0.02989	0.02589	0.00505	0.00441	5.92	5.87	-9.44428	-9.35665
65-74	0.01429	0.02014	0.00627	0.00514	2.28	3.92	-6.27654	-7.35781
AVERAGE	0.02476	0.02282	0.00344	0.00304	7.20	7.52		
STANDARDIZED	0.57594	0.58919	0.07921	0.07874	7.27	7.48		
45-74, UNIVARIATE	0.02712	0.02581	0.00333	0.00271	8.13	9.54	-8.95861	-9.22895
45-74, BIVARIATE	0.02365	0.02206	0.00345	0.00305	6.85	7.24		
45-74, MULTIVARIATE	0.02103	0.01663	0.00381	0.00338	5.52	4.93		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.04 FOR MEN, 0.92 FOR WOMEN.

TABLE 8-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
020-069	860	1	12	11.1	824	2	24	7.2	446	3	67	62.8	28	14.4	14.4
070-074	1764	4	23	12.8	1436	3	21	10.1	634	7	110	67.2	37	17.7	17.6
075-079	1428	1	7	14.9	1082	2	18	14.0	374	2	53	71.9	17	21.7	21.6
080-084	3442	3	9	17.3	2346	1	4	19.5	822	4	49	77.0	12	26.5	26.5
085-089	1878	4	21	20.1	1134	3	26	27.2	382	3	79	82.4	29	32.5	32.4
090-094	1980	6	30	23.4	1454	4	28	37.8	482	1	21	88.2	28	39.7	39.7
095-099	930	1	11	27.1	636	4	63	52.5	164	1	61	94.4	35	48.6	48.7
100-104	990	5	51	31.5	726	3	41	72.8	204	5	245	101.0	68	59.4	59.6
105-109	306	0	0	36.6	196	4	204	100.8	40	0	0	108.1	74	72.6	72.9
110-160	490	3	61	42.5	520	10	192	139.4	158	3	190	115.6	137	88.7	89.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
020-069	1606	0	0	3.8	908	0	0	8.2	444	2	45	40.1	7	10.3	10.6
070-074	2828	1	4	4.7	1744	3	17	10.5	660	4	61	47.6	15	12.7	13.0
075-079	1990	1	5	5.8	1252	4	32	13.4	450	0	0	56.5	14	15.8	16.1
080-084	4148	3	7	7.1	2980	4	13	17.2	1214	9	74	67.1	19	19.5	19.8
085-089	2096	3	14	8.7	1662	5	30	22.0	518	6	116	79.7	33	24.2	24.3
090-094	2238	1	4	10.6	2164	3	14	28.2	826	6	73	94.6	19	29.9	30.0
095-099	846	3	35	13.0	870	3	34	36.0	336	3	89	112.1	44	37.0	36.9
100-104	868	0	0	16.0	1042	1	10	46.0	378	1	26	132.9	9	45.8	45.4
105-109	286	0	0	19.6	294	4	136	58.8	82	3	366	157.3	106	56.7	55.8
110-160	706	3	42	24.1	756	8	106	75.0	268	8	299	186.1	110	70.0	68.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.03007	0.04098	0.01442	0.01523	2.08	2.69	-8.14195	-9.94193
55-64	0.06630	0.04950	0.01009	0.01030	6.57	4.80	-11.01015	-9.75266
65-74	0.01381	0.03480	0.01324	0.01062	1.04	3.28	-5.29672	-7.16792
AVERAGE	0.04300	0.04211	0.00701	0.00665	6.13	6.33		
STANDARDIZED	0.54635	0.54412	0.08912	0.08599	6.13	6.33		
45-74, UNIVARIATE	0.04066	0.04287	0.00711	0.00637	5.72	6.72	-8.58889	-9.07737
45-74, BIVARIATE	0.04098	0.04179	0.00685	0.00671	5.98	6.23		
45-74, MULTIVARIATE	0.03565	0.03214	0.00721	0.00705	4.95	4.56		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 10.99 FOR MEN, 0.99 FOR WOMEN.

TABLE 8-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
096-189	1594	5	31	15.6	1280	2	16	30.8	498	8	161	91.2	44	31.4	30.6
190-204	1364	0	0	16.8	1070	5	47	31.8	468	4	85	87.1	31	32.1	31.5
205-219	2006	4	20	18.2	1272	5	39	32.9	480	3	63	83.1	32	32.8	32.4
220-234	2068	5	24	19.6	1598	4	25	34.0	568	3	53	79.3	28	33.5	33.4
235-249	1740	2	11	21.2	1400	7	50	35.2	430	1	23	75.7	28	34.3	34.3
250-264	1574	2	13	22.9	1244	2	16	36.4	402	3	75	72.3	22	35.0	35.3
265-279	1128	4	35	24.7	882	6	68	37.6	314	0	0	69.0	43	35.8	36.3
280-294	760	4	53	26.7	574	3	52	38.8	270	2	74	65.8	56	36.6	37.4
295-309	458	0	0	28.9	350	0	0	40.2	122	2	164	62.8	22	37.4	38.4
310-1124	646	2	31	31.2	410	1	24	41.5	134	3	224	60.0	50	38.3	39.5
UNKNOWN	730	0			274	1			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
096-189	1724	1	6	6.0	592	2	34	24.8	174	7	402	129.0	40	22.3	27.6
190-204	1670	0	0	6.5	740	1	14	25.1	238	1	42	117.3	8	22.9	27.2
205-219	2052	2	10	7.0	1076	3	28	25.4	388	5	129	106.6	28	23.6	26.8
220-234	2430	3	12	7.5	1616	6	37	25.7	548	3	55	96.9	26	24.4	26.4
235-249	2182	2	9	8.1	1602	4	25	26.0	672	3	45	88.0	20	25.1	26.0
250-264	1834	0	0	8.8	1770	2	11	26.4	682	5	73	80.0	16	25.9	25.6
265-279	1532	0	0	9.4	1676	4	24	26.7	710	4	56	72.6	20	26.7	25.2
280-294	1136	1	9	10.2	1374	3	22	27.1	522	3	57	66.0	23	27.5	24.8
295-309	744	2	27	11.0	994	3	30	27.4	396	5	126	59.9	47	28.3	24.4
310-1124	1328	3	23	11.8	1788	7	39	27.8	792	5	63	54.4	38	29.2	24.0
UNKNOWN	980	1			444	0			54	1					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	WOMEN	STANDARD ERROR MEN	WOMEN	T-VALUE MEN	WOMEN	INTERCEPT OF FUNCTION MEN	WOMEN
45-54	0.00517	0.00499	0.00373	0.00295	1.39	1.69	-6.71389	-7.62957
55-64	0.00222	0.00085	0.00401	0.00363	0.55	0.23	-5.48889	-5.45794
65-74	-0.00316	-0.00651	0.00462	0.00367	-0.68	-1.77	-3.40980	-2.44384
AVERAGE	0.00200	0.00059	0.00235	0.00194	0.85	0.30		
STANDARDIZED	0.08147	0.02374	0.09838	0.08981	0.83	0.26		
45-74, UNIVARIATE	0.00148	0.00202	0.00243	0.00208	0.61	0.97	-5.33543	-5.77792
45-74, BIVARIATE	0.00191	-0.00106	0.00245	0.00234	0.78	-0.45		
45-74, MULTIVARIATE	0.00156	-0.00080	0.00245	0.00231	0.64	-0.35		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.97 FOR MEN, 5.97 FOR WOMEN.

TABLE 8-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
062-179	1836	3	16	16.4	1238	2	16	27.3	148	2	135	76.3	22	26.6	27.8
180-199	868	1	12	17.2	648	1	15	28.9	88	1	114	76.8	19	28.1	29.1
200-219	1100	3	27	18.1	848	4	47	30.6	272	3	110	77.3	45	29.6	30.4
220-239	1386	4	29	19.1	1060	3	28	32.3	392	6	153	77.8	46	31.3	31.8
240-259	1908	6	31	20.1	1548	6	39	34.2	758	5	66	78.3	40	33.0	33.2
260-279	1896	2	11	21.1	1588	8	50	36.2	690	2	29	78.8	29	34.9	34.7
280-299	1642	2	12	22.2	1266	2	16	38.3	542	1	18	79.4	14	36.8	36.3
300-319	1134	2	18	23.4	910	3	33	40.6	438	2	46	79.9	28	38.9	37.9
320-339	806	0	0	24.6	486	4	82	42.9	246	4	163	80.4	52	41.0	39.7
340-968	700	4	57	25.9	464	2	43	45.5	110	3	273	80.9	71	43.3	41.5
UNKNOWN	792	1			298	1			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
062-179	2138	3	14	9.0	1108	2	18	20.5	104	1	96	139.8	18	20.0	28.2
180-199	900	1	11	8.9	634	1	16	21.6	68	3	441	126.8	31	21.1	27.6
200-219	1628	1	6	8.7	1016	2	20	22.7	214	1	47	115.1	14	22.2	27.1
220-239	1702	1	6	8.6	1076	2	19	23.8	282	4	142	104.4	23	23.4	26.6
240-259	2202	1	5	8.5	1410	5	35	25.1	510	3	59	94.7	22	24.6	26.1
260-279	2322	1	4	8.3	1884	6	32	26.4	832	7	84	85.9	28	25.9	25.7
280-299	1920	2	10	8.2	1832	4	22	27.7	882	9	102	77.8	32	27.3	25.2
300-319	1650	1	6	8.1	1756	5	28	29.1	960	5	52	70.6	25	28.8	24.7
320-339	1020	1	10	8.0	1164	3	26	30.6	620	5	81	64.0	32	30.3	24.3
340-968	1046	2	19	7.9	1302	5	38	32.2	636	3	47	58.0	34	31.9	23.8
UNKNOWN	1084	1			490	0			68	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00255	-0.00076	0.00300	0.00433	0.85	-0.18	-6.15289	-6.18791
55-64	0.00286	0.00253	0.00278	0.00289	1.03	0.87	-5.69198	-5.92258
65-74	0.00033	-0.00498	0.00421	0.00323	0.08	-1.54	-4.22274	-2.70176
AVERAGE	0.00227	-0.00081	0.00183	0.00193	1.23	-0.42		
STANDARDIZED	0.11946	-0.06337	0.10319	0.10509	1.16	-0.60		
45-74, UNIVARIATE	0.00274	0.00260	0.00173	0.00176	1.58	1.48	-5.69746	-5.95693
45-74, BIVARIATE	0.00224	-0.00094	0.00186	0.00194	1.20	-0.48		
45-74, MULTIVARIATE	0.00199	0.00043	0.00225	0.00233	0.88	0.18		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.27 FOR MEN, 3.00 FOR WOMEN.

TABLE 8-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
029-059	388	1	26	15.4	284	1	35	32.2	82	2	244	78.4	53	28.6	29.7
060-069	2528	1	4	16.9	1600	6	38	33.2	602	6	100	78.5	27	30.2	31.0
070-079	4530	11	24	18.5	3166	10	32	34.2	1070	6	56	78.7	31	31.9	32.4
080-089	3272	6	18	20.3	2524	11	44	35.3	844	5	59	78.8	33	33.7	33.8
090-099	1512	4	26	22.2	1264	4	32	36.5	540	6	111	78.9	42	35.6	35.3
100-109	618	0	0	24.4	532	2	38	37.6	190	2	105	79.0	30	37.6	36.9
110-119	286	1	35	26.7	270	0	0	38.8	98	1	102	79.2	31	39.7	38.5
120-129	136	2	147	29.2	154	0	0	40.1	68	0	0	79.3	56	41.9	40.3
130-139	76	0	0	32.0	72	0	0	41.4	50	0	0	79.4	0	44.2	42.1
140-524	262	2	76	35.1	288	2	69	42.7	136	1	74	79.5	73	46.7	43.9
UNKNOWN	460	0			200	0			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
029-059	358	0	0	8.1	278	0	0	19.9	88	0	0	69.9	0	19.7	21.1
060-069	2994	3	10	7.9	1772	6	34	21.5	610	7	115	72.8	30	21.3	22.3
070-079	5890	2	3	7.8	4232	4	9	23.3	1576	9	57	75.8	13	23.0	23.7
080-089	4452	5	11	7.6	3734	14	37	25.3	1352	11	81	78.9	31	24.8	25.1
090-099	1832	2	11	7.5	1694	5	30	27.4	714	5	70	82.1	28	26.9	26.6
100-109	708	1	14	7.3	748	1	13	29.7	360	4	111	85.5	33	29.0	28.1
110-119	334	0	0	7.2	292	2	68	32.2	130	0	0	89.0	26	31.4	29.8
120-129	116	0	0	7.0	228	0	0	35.0	122	3	246	92.7	64	33.9	31.6
130-139	48	0	0	6.9	70	0	0	37.9	42	0	0	96.5	0	36.7	33.4
140-524	202	0	0	6.7	322	3	93	41.1	138	2	145	100.4	76	39.6	35.4
UNKNOWN	678	2			302	0			44	1					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.00919	-0.00204	0.00345	0.01564	2.67	-0.13	-6.28513	-6.31305
55-64	0.00317	0.00812	0.00489	0.00317	0.65	2.57	-5.21476	-5.97157
65-74	0.00016	0.00410	0.00601	0.00456	0.03	0.90	-4.14851	-4.48179
AVERAGE	0.00593	0.00658	0.00255	0.00256	2.33	2.56		
STANDARDIZED	0.15960	0.16826	0.06505	0.06637	2.45	2.54		
45-74, UNIVARIATE	0.00549	0.00782	0.00255	0.00246	2.15	3.18	-5.46047	-5.96433
45-74, BIVARIATE	0.00440	0.00580	0.00266	0.00267	1.66	2.17		
45-74, MULTIVARIATE	0.00288	0.00189	0.00285	0.00289	1.01	0.65		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.14 FOR MEN, 0.84 FOR WOMEN.

TABLE 8-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
065-099	1198	3	25	17.8	944	3	32	25.8	404	6	149	91.8	47	31.5	30.2
100-104	862	0	0	18.2	588	0	0	27.4	236	1	42	88.3	6	31.8	30.8
105-109	1308	1	8	18.6	876	2	23	29.2	342	2	58	84.9	20	32.2	31.4
110-114	1542	3	19	19.1	1208	7	58	31.1	414	2	48	81.7	38	32.5	32.0
115-119	1800	4	22	19.5	1438	4	28	33.1	514	3	58	78.5	29	32.8	32.6
120-124	1944	5	26	20.0	1474	4	27	35.2	488	4	82	75.5	33	33.2	33.3
125-129	1574	3	19	20.5	1194	3	25	37.4	418	5	120	72.6	35	33.6	33.9
130-134	1336	4	30	20.9	1008	5	50	39.8	370	2	54	69.8	41	33.9	34.6
135-139	788	1	13	21.4	606	2	33	42.4	196	2	102	67.2	31	34.3	35.3
140-272	1714	4	23	22.0	1016	6	59	45.1	324	2	62	64.6	39	34.6	36.0
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
065-099	2092	1	5	4.7	1086	2	18	18.0	488	6	123	84.3	25	18.8	20.2
100-104	1558	1	6	5.2	856	1	12	19.1	330	2	61	83.7	15	19.7	21.0
105-109	1976	0	0	5.8	1276	6	47	20.2	370	6	162	83.1	33	20.8	21.8
110-114	2076	2	10	6.4	1350	3	22	21.3	494	2	40	82.6	18	21.9	22.7
115-119	1974	2	10	7.0	1494	1	7	22.6	540	1	19	82.0	10	23.0	23.6
120-124	1718	3	17	7.8	1512	2	13	23.9	506	1	20	81.5	16	24.3	24.6
125-129	1414	0	0	8.6	1264	7	55	25.3	478	6	126	80.9	41	25.5	25.6
130-134	1066	0	0	9.5	1024	0	0	26.7	376	3	80	80.4	12	26.9	26.7
135-139	878	1	11	10.4	830	4	48	28.3	370	3	81	79.8	38	28.3	27.7
140-272	2860	5	17	11.5	2980	9	30	29.9	1224	12	98	79.3	37	29.8	28.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00469	0.01981	0.01152	0.00811	0.41	2.44	-6.09187	-8.89409
55-64	0.01252	0.01133	0.01061	0.00639	1.18	1.77	-6.48324	-6.72713
65-74	-0.00794	-0.00138	0.01176	0.00703	-0.68	-0.20	-3.20492	-3.93192
AVERAGE	0.00377	0.00919	0.00650	0.00409	0.58	2.25		
STANDARDIZED	0.06180	0.20577	0.10273	0.09080	0.60	2.27		
45-74, UNIVARIATE	0.00215	0.01035	0.00653	0.00403	0.33	2.57	-5.27130	-6.59178
45-74, BIVARIATE	0.00396	0.00804	0.00654	0.00426	0.60	1.89		
45-74, MULTIVARIATE	-0.00276	0.00012	0.00676	0.00441	-0.41	0.03		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.68 FOR MEN, 4.08 FOR WOMEN.

TABLE 8-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
12-31	156	0	0	42.4	292	0	0	40.9	236	3	127	109.9	44	66.9	46.4
32-35	156	0	0	37.2	334	2	60	39.6	256	4	156	100.2	80	58.0	43.5
36-39	474	1	21	32.5	630	2	32	38.3	414	4	97	91.3	46	50.3	40.7
40-43	816	4	49	28.5	1170	4	34	37.1	590	3	51	83.2	43	43.6	38.1
44-47	1708	5	29	24.9	1704	8	47	35.9	714	4	56	75.8	41	37.8	35.7
48-51	1792	1	6	21.8	1668	5	30	34.7	576	4	69	69.0	25	32.8	33.5
52-55	2636	7	27	19.1	1804	8	44	33.6	448	3	67	62.9	37	28.4	31.3
56-59	2476	9	36	16.7	1348	4	30	32.5	286	3	105	57.3	39	24.6	29.3
60-63	1858	1	5	14.6	814	2	25	31.4	108	1	93	52.1	14	21.3	27.5
64-85	1988	0	0	12.8	562	1	18	30.4	64	0	0	47.5	4	18.5	25.7
UNKNOWN	8	0			28	0			14	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
04-19	88	0	0	17.9	262	3	115	65.6	254	4	157	116.6	116	89.0	50.4
20-23	196	0	0	15.7	394	4	102	52.3	338	5	148	104.8	97	66.8	43.5
24-27	398	2	50	13.7	866	2	23	41.6	634	4	63	94.1	42	50.1	37.5
28-31	992	0	0	12.0	1820	5	27	33.1	1022	6	59	84.5	29	37.5	32.4
32-35	2198	1	5	10.5	2934	7	24	26.3	1250	12	96	75.8	31	28.1	27.9
36-39	3034	6	20	9.1	2894	6	21	20.9	888	8	90	68.1	29	21.0	24.1
40-43	4126	2	5	8.0	2434	4	16	16.6	494	2	40	61.1	11	15.7	20.8
44-47	3280	3	9	7.0	1310	3	23	13.2	216	1	46	54.8	15	11.8	17.9
48-51	2050	0	0	6.1	504	1	20	10.5	62	0	0	49.2	4	8.8	15.4
52-77	1232	1	8	5.3	238	0	0	8.4	18	0	0	44.1	7	6.6	13.3
UNKNOWN	18	0			16	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.03352	-0.03367	0.02021	0.03369	-1.66	-1.00	-3.75491	-5.02221
55-64	-0.00834	-0.05756	0.01835	0.02129	-0.45	-2.70	-4.54678	-3.28424
65-74	-0.02368	-0.02741	0.02088	0.02079	-1.13	-1.32	-3.08496	-3.24119
AVERAGE	-0.02090	-0.04075	0.01139	0.01361	-1.84	-2.99		
STANDARDIZED	-0.18802	-0.30010	0.10232	0.10038	-1.84	-2.99		
45-74, UNIVARIATE	-0.03602	-0.07279	0.01058	0.01205	-3.41	-6.04	-3.21993	-2.70043
45-74, BIVARIATE	-0.01655	-0.03717	0.01158	0.01392	-1.43	-2.67		
45-74, MULTIVARIATE	-0.00372	-0.01558	0.01203	0.01503	-0.31	-1.04		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.88 FOR MEN, 1.08 FOR WOMEN.

TABLE 8-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
37-63	2184	3	14	14.6	2006	3	15	25.0	612	2	33	61.8	17	24.7	24.6
64-67	1366	1	7	15.8	1084	3	28	27.4	404	3	74	66.0	25	26.7	26.7
68-71	1896	5	26	17.1	1390	4	29	29.9	564	6	106	70.4	39	28.9	28.9
72-75	2652	4	15	18.6	1908	5	26	32.8	696	6	86	75.1	29	31.2	31.2
76-79	800	0	0	20.1	508	1	20	35.9	156	3	192	80.1	27	33.8	33.8
80-83	1700	5	29	21.8	1176	8	68	39.2	418	1	24	85.5	43	36.5	36.5
84-87	992	5	50	23.7	698	5	72	42.9	240	1	42	91.2	57	39.5	39.5
88-91	1004	1	10	25.7	588	3	51	47.0	232	2	86	97.3	33	42.7	42.7
92-95	522	2	38	27.9	380	2	53	51.4	142	0	0	103.7	38	46.2	46.2
96-170	952	2	21	30.2	616	2	32	56.2	242	5	207	110.6	50	50.0	50.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
37-63	1780	2	11	9.1	1640	3	18	17.2	548	4	73	85.7	23	21.4	22.4
64-67	1578	4	25	8.9	1062	2	19	18.8	366	3	82	84.6	30	22.2	23.1
68-71	2308	0	0	8.8	1728	3	17	20.6	642	5	78	83.5	17	23.1	23.7
72-75	3498	2	6	8.6	2628	4	15	22.5	826	6	73	82.4	17	24.1	24.4
76-79	984	1	10	8.5	822	2	24	24.6	246	1	41	81.4	19	25.0	25.1
80-83	2312	2	9	8.4	1812	7	39	26.9	818	11	134	80.3	40	26.0	25.8
84-87	1576	0	0	8.2	1096	4	36	29.4	482	3	62	79.3	22	27.1	26.6
88-91	1272	2	16	8.1	1030	2	19	32.1	422	6	142	78.2	37	28.2	27.4
92-95	776	0	0	8.0	628	1	16	35.1	260	0	0	77.2	6	29.3	28.1
96-170	1528	2	13	7.9	1226	7	57	38.3	566	3	53	76.2	36	30.5	28.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	WOMEN	STANDARD ERROR MEN	WOMEN	T-VALUE MEN	WOMEN	INTERCEPT OF FUNCTION MEN	WOMEN
45-54	0.02039	-0.00398	0.01409	0.02128	1.45	-0.19	-7.10057	-6.06507
55-64	0.02269	0.02230	0.01131	0.01127	2.01	1.98	-6.69988	-7.04942
65-74	0.01645	-0.00333	0.01299	0.01209	1.27	-0.28	-5.40050	-3.84253
AVERAGE	0.02010	0.00852	0.00730	0.00769	2.76	1.11		
STANDARDIZED	0.25888	0.10952	0.09393	0.09855	2.76	1.11		
45-74, UNIVARIATE	0.01974	0.00987	0.00743	0.00790	2.66	1.25	-6.53062	-6.06215
45-74, BIVARIATE	0.01982	0.00713	0.00724	0.00787	2.74	0.91		
45-74, MULTIVARIATE	0.00932	0.00195	0.00761	0.00815	1.23	0.24		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.13 FOR MEN, 2.80 FOR WOMEN.

TABLE 8-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NONE	5334	4	7	10.8	5024	15	30	29.0	2186	15	69	67.2	27	27.9	23.5
UNDER 20	1998	6	30	15.8	1644	4	24	34.2	694	5	72	81.1	35	32.1	30.5
20	3222	7	22	23.1	2014	10	50	40.3	474	5	105	97.8	39	37.0	39.6
OVER 20	3436	11	32	33.9	1620	7	43	47.6	342	4	117	117.9	41	42.5	51.2
UNKNOWN	78	0			52	0			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NONE	9940	8	8	8.3	9654	28	29	26.6	4122	33	80	76.1	29	27.2	24.2
UNDER 20	4114	4	10	8.7	2348	1	4	24.5	700	4	57	93.7	13	23.5	26.2
20	2458	2	8	9.1	1110	5	45	22.6	240	3	125	115.3	26	20.4	28.4
OVER 20	1032	1	10	9.6	512	1	20	20.9	92	2	217	141.6	24	17.6	30.7
UNKNOWN	68	0			48	0			22	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.38366	0.04868	0.16372	0.27420	2.34	0.18	-6.13828	-6.40422
55-64	0.16696	-0.08032	0.14021	0.22496	1.19	-0.36	-5.14571	-5.23191
65-74	0.19054	0.21148	0.16990	0.20980	1.12	1.01	-4.29526	-4.16969
AVERAGE	0.23944	0.06929	0.09023	0.13390	2.65	0.52		
STANDARDIZED	0.26215	0.06089	0.10091	0.09846	2.60	0.62		
45-74, UNIVARIATE	0.14131	-0.14563	0.08576	0.13450	1.65	-1.08	-5.18253	-5.20843
45-74, BIVARIATE	0.26128	0.07989	0.08864	0.13447	2.95	0.59		
45-74, MULTIVARIATE	0.29428	0.13801	0.09058	0.13707	3.25	1.01		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.13 FOR MEN, 0.91 FOR WOMEN.

TABLE 8-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	7372	6	8	9.3	4752	6	13	11.9	1460	6	41	42.0	13	14.0	15.0
BORDER	4288	11	26	21.5	3332	10	30	32.2	1390	11	79	77.3	36	33.4	33.9
DEFINITE	2408	11	46	49.4	2270	20	88	86.5	856	12	140	141.7	78	79.4	76.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	9946	5	5	5.1	4986	6	12	11.6	1198	1	8	24.0	7	8.8	11.8
BORDER	5026	5	10	9.8	4894	11	22	23.4	2086	16	77	58.7	27	23.1	24.8
DEFINITE	2640	5	19	19.1	3792	18	47	46.9	1892	25	132	142.1	58	60.3	51.9
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.83635	0.66460	0.23713	0.31562	3.53	2.11	-6.28065	-6.89507
55-64	1.00067	0.70197	0.22545	0.22731	4.44	3.09	-6.04061	-6.06366
65-74	0.61853	0.90074	0.24462	0.25144	2.53	3.58	-4.77210	-5.33362
AVERAGE	0.82883	0.76322	0.13587	0.14873	6.10	5.13		
STANDARDIZED	0.63940	0.58751	0.10497	0.11448	6.09	5.13		
45-74, UNIVARIATE	0.87609	0.96833	0.13396	0.14150	6.54	6.84	-5.87842	-6.34306
45-74, BIVARIATE	0.81950	0.74426	0.13535	0.14777	6.05	5.04		
45-74, MULTIVARIATE	0.73347	0.61250	0.14128	0.15553	5.19	3.94		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.32 FOR MEN, 0.47 FOR WOMEN.

TABLE 8-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	11820	20	17	17.0	7808	26	33	33.2	2376	16	67	61.6	28	27.6	29.7
POSSIBLE	1076	3	28	27.2	1136	4	35	37.2	546	2	37	87.0	33	41.4	38.9
DEFINITE	1158	5	43	43.5	1408	6	43	41.8	784	11	140	122.8	66	62.0	50.9
UNKNOWN	14	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	14230	13	9	9.1	8638	11	13	11.0	2422	12	50	42.6	14	13.0	16.5
POSSIBLE	1598	1	6	7.0	2202	3	14	27.6	966	4	41	76.3	17	30.2	30.4
DEFINITE	1772	1	6	5.3	2824	21	74	68.9	1788	26	145	136.0	75	70.2	56.0
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.47391	-0.26797	0.24313	0.48323	1.95	-0.55	-5.68337	-6.30752
55-64	0.11676	0.92533	0.22088	0.19649	0.53	4.71	-5.00942	-6.12085
65-74	0.35142	0.59002	0.20881	0.18412	1.68	3.20	-4.38495	-4.75710
AVERAGE	0.30606	0.57397	0.12872	0.12944	2.38	5.21		
STANDARDIZED	0.21747	0.54413	0.09007	0.10734	2.41	5.07		
45-74, UNIVARIATE	0.40808	0.84998	0.12528	0.11513	3.26	7.38	-5.19292	-5.95214
45-74, BIVARIATE	0.27242	0.61514	0.12882	0.12140	2.11	5.07		
45-74, MULTIVARIATE	0.05435	0.33468	0.14080	0.13319	0.39	2.51		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.26 FOR MEN, 5.64 FOR WOMEN.

TABLE 8-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	13578	26	19	18.8	9642	24	25	24.7	3420	27	79	77.4	29	28.4	29.4
POSSIBLE	274	0	0	36.2	394	3	76	84.1	124	0	0	84.1	38	69.7	64.0
DEFINITE	216	2	93	69.6	318	9	283	278.1	162	2	123	91.3	187	168.7	138.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	17294	15	9	******	12934	23	18	19.0	4754	28	59	61.2	19	19.7	21.3
POSSIBLE	204	0	0	******	420	6	143	68.1	222	6	270	170.3	142	73.6	64.1
DEFINITE	114	0	0	******	318	6	189	238.0	200	8	400	455.5	222	267.2	189.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.66017	*******	0.39663	*******	1.66	****	-5.58047	********
55-64	1.23612	1.28660	0.19847	0.20831	6.23	6.18	-5.30428	-5.56914
65-74	0.08374	1.04496	0.39868	0.19342	0.21	5.40	-4.15230	-4.39019
AVERAGE	0.94925	1.15684	0.16215	0.14174	5.85	8.16		
STANDARDIZED	0.34417	0.44396	0.05959	0.05410	5.78	8.21		
45-74, UNIVARIATE	0.90461	1.32937	0.15389	0.13599	5.88	9.78	-5.16400	-5.53303
45-74, BIVARIATE	0.78701	1.10965	0.15586	0.13975	5.05	7.94		
45-74, MULTIVARIATE	0.45998	0.71962	0.17628	0.16448	2.61	4.38		

CHI SQUARE FOR DISPERSION AROUND AVERAGE COEFFICIENT: 7.33 (2 DF) FOR MEN, 0.72 (1 DF) FOR WOMEN.

TABLE 8-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	13864	26	19	18.8	10070	36	36	35.7	3502	27	77	77.1	32	32.4	32.8
YES	204	2	98	98.0	284	0	0	0.0	204	2	98	98.0	58	57.8	42.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	17494	15	9	8.6	13400	34	25	25.4	5074	40	79	78.8	25	24.7	25.0
YES	118	0	0	0.0	272	1	37	36.8	102	2	196	196.1	61	61.0	45.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.67003	********	0.74068	*******	2.25	*****	-5.58205	********
55-64	********	0.37314	*******	1.01832	*****	0.37	********	-5.27841
65-74	0.24454	0.93529	0.74001	0.73879	0.33	1.27	-4.15657	-4.13397
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	0.58280	0.90919	0.51404	0.59054	1.13	1.54	-5.03132	-5.30364
45-74, BIVARIATE	0.25784	0.59691	0.51798	0.59337	0.50	1.01		
45-74, MULTIVARIATE	0.18812	0.71883	0.52106	0.59793	0.36	1.20		

TABLE 8-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	13388	25	19	18.7	9622	31	32	32.2	3296	24	73	72.8	30	30.4	31.3
YES	680	3	44	44.1	732	5	68	68.3	410	5	122	122.0	71	71.4	59.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	16960	14	8	8.3	12790	30	23	23.5	4642	32	69	68.9	22	22.1	23.3
YES	652	1	15	15.3	882	5	57	56.7	534	10	187	187.3	77	77.4	57.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.86488	0.62093	0.61356	1.03664	1.41	0.60	-5.58635	-6.40476
55-64	0.75877	0.88917	0.48501	0.48558	1.56	1.83	-5.03821	-5.35737
65-74	0.52571	1.02364	0.49727	0.36821	1.06	2.78	-4.21459	-4.27013
AVERAGE	0.69845	0.94832	0.30218	0.28231	2.31	3.36		
STANDARDIZED	0.18390	0.24553	0.07820	0.07537	2.35	3.26		
45-74, UNIVARIATE	0.86106	1.26426	0.30102	0.27695	2.86	4.57	-5.09628	-5.41727
45-74, BIVARIATE	0.64609	0.90781	0.30433	0.28127	2.12	3.23		
45-74, MULTIVARIATE	0.37842	0.72707	0.30742	0.28482	1.23	2.55		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.21 FOR MEN, 0.16 FOR WOMEN.

TABLE 8-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	13806	26	19	18.8	9984	34	34	34.1	3524	26	74	73.8	31	31.5	32.0
YES	220	2	91	90.9	336	2	60	59.5	174	3	172	172.4	96	95.9	76.8
UNKNOWN	42	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	17006	14	8	8.2	13244	34	26	25.7	5010	38	76	75.8	24	24.4	24.3
YES	564	1	18	17.7	388	1	26	25.8	150	4	267	266.7	54	54.4	58.3
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.58886	0.76911	0.74018	1.03687	2.15	0.74	-5.57784	-6.40747
55-64	0.56356	0.00395	0.73187	1.01722	0.77	0.00	-4.98240	-5.26664
65-74	0.86904	1.29679	0.61990	0.53926	1.40	2.40	-4.20124	-4.17317
AVERAGE	0.98716	0.97061	0.39858	0.43293	2.48	2.24		
STANDARDIZED	0.16963	0.16403	0.06517	0.07319	2.60	2.24		
45-74, UNIVARIATE	1.12672	0.80909	0.39668	0.42448	2.84	1.91	-5.06134	-5.31812
45-74, BIVARIATE	0.88573	0.88483	0.39958	0.42676	2.22	2.07		
45-74, MULTIVARIATE	0.39894	0.15863	0.41158	0.45488	0.97	0.35		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.03 FOR MEN, 1.31 FOR WOMEN.

TABLE 8-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	13688	26	19	19.0	9974	33	33	33.1	3544	28	79	79.0	32	32.0	32.2
YES	342	2	58	58.5	346	3	87	86.7	154	1	65	64.9	71	71.3	63.2
UNKNOWN	38	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	17372	14	8	8.1	13396	33	25	24.6	5060	40	79	79.1	24	24.3	24.5
YES	200	1	50	50.0	240	2	83	83.3	100	2	200	200.0	93	92.6	79.4
UNKNOWN	40	0			36	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.13247	1.83368	0.73792	1.04002	1.53	1.76	-5.56922	-6.42880
55-64	0.97426	1.23058	0.60805	0.73412	1.60	1.68	-5.01144	-5.30812
65-74	-0.19900	0.95310	1.02442	0.73908	-0.19	1.29	-4.13173	-4.13116
AVERAGE	0.82365	1.24134	0.42663	0.46571	1.93	2.67		
STANDARDIZED	0.14726	0.16098	0.07362	0.05916	2.00	2.72		
45-74, UNIVARIATE	0.80920	1.35227	0.42502	0.46403	1.90	2.91	-5.04572	-5.32256
45-74, BIVARIATE	0.68153	1.18845	0.42650	0.46754	1.60	2.54		
45-74, MULTIVARIATE	0.29949	0.71411	0.47174	0.48535	0.63	1.47		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.23 FOR MEN, 0.48 FOR WOMEN.

TABLE 8-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	13650	24	18	17.6	9806	33	34	33.7	3434	26	76	75.7	31	30.9	31.5
YES	418	4	96	95.7	548	3	55	54.7	272	3	110	110.3	81	80.8	66.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	17264	15	9	8.7	13138	30	23	22.8	4830	36	75	74.5	23	23.0	23.9
YES	348	0	0	0.0	534	5	94	93.6	346	6	173	173.4	90	89.6	62.7
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.71006	********	0.54469	*******	3.14	*****	-5.64677	********
55-64	0.49084	1.42544	0.60624	0.48714	0.81	2.93	-4.99434	-5.38434
65-74	0.38324	0.86468	0.61636	0.44817	0.62	1.93	-4.17498	-4.19092
AVERAGE	0.92944	********	0.33857	*******	2.75	*****		
STANDARDIZED	0.20860	********	0.06903	*******	3.02	*****		
45-74, UNIVARIATE	0.97210	1.37348	0.33729	0.32399	2.88	4.24	-5.08133	-5.37751
45-74, BIVARIATE	0.75993	0.97203	0.33987	0.32855	2.24	2.96		
45-74, MULTIVARIATE	0.62266	0.41657	0.34685	0.35678	1.80	1.17		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.36 FOR MEN.

TABLE 8-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CEREBROVASCULAR ACCIDENT
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	28	20		10354	36	35		3706	29	78		33		
NO	13246	23	17	17.4	9498	32	34	33.7	3300	26	79	78.8	31	31.1	31.7
YES	822	5	61	60.8	856	4	47	46.7	406	3	74	73.9	58	57.6	50.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	15	9		13672	35	26		5176	42	81		25		
NO	17024	14	8	8.2	12808	30	23	23.4	4668	33	71	70.7	22	22.3	23.5
YES	588	1	17	17.0	864	5	58	57.9	508	9	177	177.2	77	76.5	56.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.26241	0.72836	0.49608	1.03680	2.54	0.70	-5.65933	-6.40853
55-64	0.32975	0.91144	0.53275	0.48563	0.62	1.88	-4.99319	-5.35878
65-74	-0.06515	0.94056	0.61434	0.38201	-0.11	2.46	-4.13455	-4.24459
AVERAGE	0.59777	0.91387	0.31255	0.28840	1.91	3.17		
STANDARDIZED	0.17318	0.23233	0.08235	0.07499	2.10	3.10		
45-74, UNIVARIATE	0.62130	1.24321	0.31101	0.28416	2.00	4.38	-5.07371	-5.40729
45-74, BIVARIATE	0.45952	0.88269	0.31280	0.28840	1.47	3.06		
45-74, MULTIVARIATE	0.21088	0.49627	0.32879	0.30643	0.64	1.62		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.21 FOR MEN, 0.04 FOR WOMEN.

TABLE 9-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
074-109	858	0	0	3.3	578	1	17	4.2	164	0	0	14.3	6	4.4	5.3
110-119	2368	3	13	4.4	1284	0	0	5.9	342	1	29	17.6	10	6.0	7.0
120-129	3066	0	0	5.7	1908	0	0	8.4	508	1	20	21.6	2	8.3	9.4
130-139	3064	3	10	7.5	1972	3	15	12.0	690	1	14	26.6	12	11.5	12.6
140-149	2030	0	0	9.8	1566	1	6	17.0	616	1	16	32.6	5	15.9	16.8
150-159	1224	1	8	12.9	1082	4	37	24.2	464	3	65	40.1	29	22.0	22.3
160-169	658	3	46	16.8	734	4	54	34.4	336	2	60	49.1	52	30.3	29.8
170-179	360	0	0	22.0	496	1	20	48.8	200	2	100	60.3	28	41.8	39.7
180-189	226	0	0	28.8	300	3	100	69.1	142	1	70	73.9	60	57.7	52.9
190-300	214	2	93	37.7	434	6	138	97.8	244	2	82	90.5	112	79.4	70.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
074-109	1580	0	0	1.8	512	0	0	3.4	104	0	0	12.3	0	3.7	4.4
110-119	3060	1	3	2.4	1270	0	0	4.6	282	0	0	15.4	2	4.9	5.7
120-129	3494	2	6	3.1	1852	0	0	6.1	406	1	25	19.4	5	6.5	7.4
130-139	3482	0	0	4.0	2322	3	13	8.2	708	1	14	24.5	6	8.7	9.6
140-149	2138	1	5	5.2	1998	2	10	10.9	834	2	24	30.8	10	11.6	12.4
150-159	1526	2	13	6.7	1810	4	22	14.6	790	3	38	38.7	22	15.5	16.1
160-169	890	0	0	8.8	1340	1	7	19.5	630	4	63	48.6	17	20.6	20.9
170-179	562	0	0	11.4	946	4	42	26.1	514	1	19	61.0	25	27.4	27.1
180-189	422	1	24	14.8	670	0	0	34.8	366	4	109	76.6	34	36.5	35.2
190-300	458	2	44	19.2	952	9	95	46.4	542	8	148	96.1	97	48.6	45.6
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02703	0.02629	0.01085	0.00778	2.49	3.38	-10.15034	-10.68426
55-64	0.03528	0.02904	0.00597	0.00513	5.91	5.67	-10.79430	-10.33356
65-74	0.02064	0.02306	0.00833	0.00660	2.48	3.49	-8.01781	-8.42848
AVERAGE	0.02977	0.02668	0.00443	0.00359	6.72	7.43		
STANDARDIZED	0.69433	0.68770	0.10339	0.09276	6.72	7.41		
45-74, UNIVARIATE	0.03240	0.02880	0.00427	0.00326	7.59	8.84	-10.44551	-10.24048
45-74, BIVARIATE	0.02896	0.02616	0.00444	0.00362	6.53	7.23		
45-74, MULTIVARIATE	0.02744	0.01911	0.00493	0.00414	5.57	4.62		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.12 FOR MEN, 0.52 FOR WOMEN.

TABLE 9-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
020-069	860	0	0	5.0	824	1	12	3.7	446	1	22	30.1	9	6.2	6.3
070-074	1764	2	11	5.7	1436	1	7	5.4	634	3	47	32.3	16	7.9	8.0
075-079	1428	0	0	6.6	1082	2	18	7.7	374	2	53	34.6	14	10.1	10.2
080-084	3442	3	9	7.5	2346	0	0	11.1	822	1	12	37.1	6	12.9	12.9
085-089	1878	1	5	8.7	1134	1	9	15.9	382	2	52	39.8	12	16.4	16.4
090-094	1980	2	10	9.9	1454	3	21	22.9	482	1	21	42.7	15	20.9	20.9
095-099	930	1	11	11.4	636	3	47	32.9	164	1	61	45.8	29	26.6	26.5
100-104	990	2	20	13.1	726	3	41	47.1	204	2	98	49.1	36	33.8	33.7
105-109	306	0	0	15.1	196	3	153	67.5	40	0	0	52.6	55	43.0	42.8
110-160	490	1	20	17.3	520	6	115	96.6	158	1	63	56.4	68	54.6	54.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
020-069	1606	0	0	1.5	908	0	0	4.2	444	1	23	16.1	3	4.6	4.5
070-074	2828	0	0	2.0	1744	1	6	5.6	660	1	15	20.5	4	6.0	6.0
075-079	1990	1	5	2.6	1252	2	16	7.4	450	0	0	26.1	8	7.8	7.8
080-084	4148	1	2	3.5	2980	2	7	9.9	1214	4	33	33.2	8	10.3	10.3
085-089	2096	1	5	4.6	1662	3	18	13.3	518	2	39	42.2	14	13.5	13.5
090-094	2238	1	4	6.2	2164	3	14	17.7	826	6	73	53.7	19	17.7	17.7
095-099	846	2	24	8.2	870	2	23	23.7	336	1	30	68.2	24	23.2	23.2
100-104	868	0	0	11.0	1042	1	10	31.6	378	1	26	86.6	9	30.4	30.4
105-109	286	0	0	14.6	294	3	102	42.1	82	2	244	109.9	76	39.9	39.9
110-160	706	3	42	19.4	756	6	79	56.1	268	6	224	139.2	87	52.2	52.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02781	0.05732	0.02217	0.01704	1.25	3.36	-8.79055	-11.99627
55-64	0.07274	0.05796	0.01229	0.01212	5.92	4.78	-12.11048	-10.99989
65-74	0.01404	0.04854	0.01893	0.01311	0.74	3.70	-6.05328	-9.01368
AVERAGE	0.05045	0.05441	0.00935	0.00789	5.40	6.90		
STANDARDIZED	0.64262	0.70314	0.11916	0.10192	5.39	6.90		
45-74, UNIVARIATE	0.04840	0.05440	0.00938	0.00754	5.16	7.21	-9.95160	-10.67163
45-74, BIVARIATE	0.04812	0.05448	0.00902	0.00797	5.33	6.83		
45-74, MULTIVARIATE	0.04403	0.04190	0.00966	0.00860	4.56	4.87		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 8.03 FOR MEN, 0.32 FOR WOMEN.

TABLE 9-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
096-189	1594	1	6	4.2	1280	2	16	21.3	498	4	80	38.4	21	13.7	13.2
190-204	1364	0	0	5.0	1070	3	28	21.7	468	1	21	38.3	14	14.7	14.3
205-219	2006	2	10	5.9	1272	2	16	22.1	480	2	42	38.1	16	15.9	15.6
220-234	2068	0	0	7.0	1598	3	19	22.6	568	1	18	38.0	9	17.1	16.9
235-249	1740	1	6	8.3	1400	4	29	23.0	430	0	0	37.9	14	18.4	18.3
250-264	1574	1	6	9.8	1244	1	8	23.5	402	2	50	37.8	12	19.7	19.9
265-279	1128	3	27	11.7	882	6	68	23.9	314	0	0	37.7	39	21.2	21.6
280-294	760	3	39	13.9	574	2	35	24.4	270	1	37	37.5	37	22.8	23.4
295-309	458	0	0	16.5	350	0	0	24.8	122	1	82	37.4	11	24.6	25.4
310-1124	646	1	15	19.5	410	0	0	25.3	134	2	149	37.3	25	26.4	27.6
UNKNOWN	730	0			274	0			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
096-189	1724	1	6	3.9	592	2	34	13.8	174	4	230	49.2	28	11.5	13.4
190-204	1670	0	0	4.2	740	0	0	14.4	238	1	42	48.3	4	12.3	13.9
205-219	2052	1	5	4.5	1076	3	28	15.1	388	2	52	47.5	17	13.1	14.3
220-234	2430	2	8	4.8	1616	3	19	15.7	548	0	0	46.7	11	13.9	14.8
235-249	2182	1	5	5.2	1602	2	12	16.4	672	2	30	45.9	11	14.8	15.3
250-264	1834	0	0	5.6	1770	1	6	17.1	682	3	44	45.2	9	15.7	15.8
265-279	1532	0	0	6.1	1676	2	12	17.9	710	1	14	44.4	8	16.7	16.3
280-294	1136	1	9	6.5	1374	2	15	18.6	522	1	19	43.6	13	17.8	16.9
295-309	744	1	13	7.0	994	2	20	19.4	396	4	101	42.9	33	19.0	17.4
310-1124	1328	2	15	7.6	1788	6	34	20.3	792	5	63	42.2	33	20.2	18.0
UNKNOWN	980	0			444	0			54	1					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.01146	0.00501	0.00359	0.00355	3.19	1.41	-9.17889	-8.07755
55-64	0.00129	0.00284	0.00500	0.00436	0.26	0.65	-5.68817	-6.40663
65-74	-0.00022	-0.00115	0.00653	0.00469	-0.03	-0.24	-4.82114	-4.40296
AVERAGE	0.00663	0.00279	0.00266	0.00237	2.49	1.17		
STANDARDIZED	0.27448	0.12715	0.11219	0.10986	2.45	1.16		
45-74, UNIVARIATE	0.00488	0.00415	0.00304	0.00219	1.60	1.89	-6.78644	-6.82679
45-74, BIVARIATE	0.00547	0.00217	0.00312	0.00280	1.75	0.78		
45-74, MULTIVARIATE	0.00500	0.00231	0.00308	0.00271	1.62	0.85		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.05 FOR MEN, 1.09 FOR WOMEN.

TABLE 9-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
062-179	1836	1	5	3.5	1238	2	16	18.7	148	1	68	36.7	12	11.9	12.1
180-199	868	0	0	4.2	648	1	15	19.6	88	1	114	37.0	12	13.0	13.2
200-219	1100	0	0	5.1	848	2	24	20.6	272	2	74	37.2	18	14.3	14.5
220-239	1386	3	22	6.2	1060	3	28	21.6	392	1	26	37.5	25	15.7	15.8
240-259	1908	3	16	7.5	1548	2	13	22.6	758	3	40	37.8	19	17.2	17.3
260-279	1896	0	0	9.0	1588	5	31	23.7	690	2	29	38.1	17	18.9	18.9
280-299	1642	0	0	10.9	1266	1	8	24.8	542	0	0	38.4	3	20.8	20.7
300-319	1134	1	9	13.1	910	2	22	26.0	438	0	0	38.6	12	22.8	22.6
320-339	806	0	0	15.8	486	3	62	27.3	246	2	81	38.9	33	25.0	24.7
340-968	700	4	57	19.0	464	2	43	28.6	110	2	182	39.2	63	27.5	27.0
UNKNOWN	792	0			298	0			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
062-179	2138	3	14	7.5	1108	2	18	14.6	104	0	0	61.6	15	12.8	17.5
180-199	900	1	11	6.9	634	1	16	15.1	68	1	147	58.4	19	13.3	17.1
200-219	1628	0	0	6.3	1016	1	10	15.7	214	1	47	55.3	7	13.9	16.7
220-239	1702	0	0	5.8	1076	1	9	16.2	282	2	71	52.4	10	14.5	16.4
240-259	2202	1	5	5.3	1410	4	28	16.8	510	2	39	49.7	17	15.2	16.0
260-279	2322	0	0	4.9	1884	2	11	17.4	832	5	60	47.0	14	15.9	15.7
280-299	1920	1	5	4.5	1832	4	22	18.0	882	6	68	44.6	24	16.6	15.3
300-319	1650	1	6	4.1	1756	3	17	18.7	960	0	0	42.2	9	17.3	15.0
320-339	1020	1	10	3.8	1164	1	9	19.3	620	4	65	40.0	21	18.1	14.7
340-968	1046	1	10	3.5	1302	4	31	20.0	636	2	31	37.9	23	18.9	14.3
UNKNOWN	1084	0			490	0			68	1					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00939	-0.00432	0.00353	0.00532	2.66	-0.81	-8.85366	-5.76625
55-64	0.00235	0.00176	0.00346	0.00355	0.68	0.50	-5.98225	-6.13283
65-74	0.00037	-0.00273	0.00604	0.00437	0.06	-0.63	-4.96918	-3.91937
AVERAGE	0.00501	-0.00093	0.00229	0.00244	2.19	-0.38		
STANDARDIZED	0.26657	-0.05739	0.13103	0.13471	2.03	-0.43		
45-74, UNIVARIATE	0.00467	0.00219	0.00225	0.00225	2.08	0.97	-6.83465	-6.34068
45-74, BIVARIATE	0.00448	-0.00110	0.00244	0.00245	1.83	-0.45		
45-74, MULTIVARIATE	0.00297	-0.00132	0.00299	0.00286	0.99	-0.46		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.72 FOR MEN, 1.15 FOR WOMEN.

TABLE 9-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
029-059	388	1	26	6.2	284	0	0	18.6	82	0	0	46.4	13	14.6	15.2
060-069	2528	0	0	6.9	1600	5	31	19.8	602	3	50	43.4	17	15.5	16.0
070-079	4530	5	11	7.7	3166	6	19	21.0	1070	4	37	40.5	17	16.6	16.8
080-089	3272	2	6	8.5	2524	7	28	22.3	844	2	24	37.8	17	17.7	17.8
090-099	1512	1	7	9.5	1264	2	16	23.7	540	3	56	35.4	18	18.8	18.7
100-109	618	0	0	10.5	532	1	19	25.1	190	1	53	33.0	15	20.1	19.7
110-119	286	0	0	11.7	270	0	0	26.7	98	1	102	30.8	15	21.4	20.8
120-129	136	2	147	13.0	154	0	0	28.3	68	0	0	28.8	56	22.8	21.9
130-139	76	0	0	14.5	72	0	0	30.0	50	0	0	26.9	0	24.3	23.1
140-524	262	1	38	16.1	288	2	69	31.9	136	0	0	25.1	44	25.9	24.3
UNKNOWN	460	0			200	0			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
029-059	358	0	0	3.5	278	0	0	12.0	88	0	0	36.8	0	10.8	11.5
060-069	2994	1	3	3.8	1772	2	11	13.3	610	5	82	39.0	15	11.9	12.5
070-079	5890	1	2	4.0	4232	3	7	14.7	1576	3	19	41.3	6	13.2	13.6
080-089	4452	3	7	4.2	3734	11	29	16.2	1352	7	52	43.8	22	14.5	14.8
090-099	1832	1	5	4.4	1694	3	18	17.9	714	2	28	46.4	14	16.0	16.0
100-109	708	1	14	4.7	748	0	0	19.7	360	2	56	49.1	17	17.7	17.4
110-119	334	0	0	5.0	292	1	34	21.8	130	0	0	52.0	13	19.5	18.9
120-129	116	0	0	5.2	228	0	0	24.1	122	3	246	55.1	64	21.5	20.5
130-139	48	0	0	5.5	70	0	0	26.6	42	0	0	58.4	0	23.8	22.2
140-524	202	0	0	5.9	322	3	93	29.4	138	1	72	61.8	60	26.2	24.1
UNKNOWN	678	2			302	0			44	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01055	0.00559	0.00430	0.01377	2.45	0.41	-7.26805	-7.55718
55-64	0.00600	0.00997	0.00480	0.00321	1.25	3.10	-5.91830	-6.57678
65-74	-0.00687	0.00581	0.01289	0.00528	-0.53	1.10	-4.29227	-5.22347
AVERAGE	0.00763	0.00872	0.00311	0.00269	2.45	3.24		
STANDARDIZED	0.19976	0.22330	0.07858	0.06928	2.54	3.22		
45-74, UNIVARIATE	0.00639	0.00986	0.00319	0.00260	2.01	3.79	-6.18581	-6.67515
45-74, BIVARIATE	0.00529	0.00821	0.00333	0.00277	1.59	2.96		
45-74, MULTIVARIATE	0.00325	0.00372	0.00355	0.00310	0.92	1.20		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.84 FOR MEN, 0.51 FOR WOMEN.

TABLE 9-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
065-099	1198	1	8	7.5	944	1	11	12.7	404	2	50	43.5	16	14.4	13.7
100-104	862	0	0	7.7	588	0	0	14.2	236	1	42	42.0	6	15.0	14.4
105-109	1308	1	8	7.9	876	2	23	15.8	342	1	29	40.6	16	15.6	15.1
110-114	1542	1	6	8.1	1208	3	25	17.7	414	2	48	39.2	19	16.2	15.9
115-119	1800	1	6	8.3	1438	2	14	19.8	514	1	19	37.9	11	16.9	16.7
120-124	1944	2	10	8.6	1474	3	20	22.1	488	1	20	36.7	15	17.6	17.6
125-129	1574	2	13	8.8	1194	2	17	24.7	418	4	96	35.4	25	18.3	18.5
130-134	1336	2	15	9.1	1008	4	40	27.6	370	2	54	34.2	29	19.0	19.4
135-139	788	0	0	9.3	606	2	33	30.8	196	0	0	33.1	13	19.8	20.4
140-272	1714	2	12	9.6	1016	4	39	34.4	324	0	0	32.0	20	20.6	21.5
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
065-099	2092	0	0	1.7	1086	0	0	9.6	488	0	0	33.5	0	8.3	8.6
100-104	1558	0	0	2.0	856	0	0	10.4	330	2	61	35.3	7	9.1	9.5
105-109	1976	0	0	2.3	1276	4	31	11.4	370	2	54	37.2	17	10.0	10.4
110-114	2076	0	0	2.7	1350	2	15	12.4	494	2	40	39.2	10	11.1	11.4
115-119	1974	1	5	3.2	1494	1	7	13.5	540	1	19	41.3	7	12.2	12.5
120-124	1718	3	17	3.7	1512	2	13	14.7	506	1	20	43.5	16	13.4	13.6
125-129	1414	0	0	4.4	1264	5	40	16.0	478	2	42	45.9	22	14.8	15.0
130-134	1066	0	0	5.1	1024	0	0	17.4	376	3	80	48.3	12	16.3	16.4
135-139	878	0	0	6.0	830	2	24	18.9	370	2	54	50.9	19	18.0	18.0
140-272	2860	5	17	7.0	2980	7	23	20.6	1224	9	74	53.6	30	19.8	19.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00556	0.03124	0.01753	0.00808	0.32	3.87	-7.04783	-11.02772
55-64	0.02228	0.01708	0.01285	0.00708	1.73	2.41	-8.14786	-7.92111
65-74	-0.00688	0.01055	0.01684	0.00836	-0.41	1.26	-4.06492	-6.02752
AVERAGE	0.01003	0.01958	0.00883	0.00449	1.14	4.36		
STANDARDIZED	0.16182	0.43644	0.13876	0.09973	1.17	4.38		
45-74, UNIVARIATE	0.00802	0.01946	0.00882	0.00437	0.91	4.46	-6.62970	-8.29969
45-74, BIVARIATE	0.01004	0.01838	0.00887	0.00466	1.13	3.94		
45-74, MULTIVARIATE	0.00314	0.00891	0.00906	0.00506	0.35	1.76		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.98 FOR MEN, 3.37 FOR WOMEN.

TABLE 9-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
12-31	156	0	0	22.7	292	0	0	32.4	236	1	42	57.1	15	40.7	28.2
32-35	156	0	0	19.1	334	2	60	29.9	256	2	78	50.9	54	34.2	25.7
36-39	474	0	0	16.0	630	1	16	27.7	414	3	72	45.4	26	28.7	23.4
40-43	816	2	25	13.4	1170	3	26	25.5	590	2	34	40.4	27	24.1	21.2
44-47	1708	3	18	11.2	1704	6	35	23.6	714	2	28	36.0	27	20.2	19.3
48-51	1792	1	6	9.4	1668	3	18	21.8	576	1	17	32.1	12	16.9	17.6
52-55	2636	3	11	7.9	1804	4	22	20.1	448	1	22	28.6	16	14.2	16.0
56-59	2476	3	12	6.6	1348	2	15	18.6	286	1	35	25.5	15	11.9	14.5
60-63	1858	0	0	5.6	814	1	12	17.2	108	1	93	22.7	7	10.0	13.2
64-85	1988	0	0	4.7	562	1	18	15.9	64	0	0	20.2	4	8.4	12.0
UNKNOWN	8	0			28	0			14	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
04-19	88	0	0	13.7	262	3	115	35.7	254	1	39	50.1	66	46.5	25.3
20-23	196	0	0	11.4	394	2	51	29.9	338	3	89	49.0	54	36.3	22.8
24-27	398	2	50	9.5	866	2	23	25.0	634	1	16	48.0	26	28.3	20.5
28-31	992	0	0	8.0	1820	1	5	20.9	1022	6	59	46.9	18	22.1	18.5
32-35	2198	0	0	6.6	2934	3	10	17.5	1250	5	40	45.9	13	17.2	16.7
36-39	3034	3	10	5.5	2894	5	17	14.6	888	6	68	44.9	21	13.4	15.0
40-43	4126	2	5	4.6	2434	3	12	12.2	494	1	20	43.9	9	10.5	13.5
44-47	3280	1	3	3.9	1310	3	23	10.2	216	1	46	42.9	10	8.2	12.2
48-51	2050	0	0	3.2	504	1	20	8.5	62	0	0	42.0	4	6.4	11.0
52-77	1232	1	8	2.7	238	0	0	7.1	18	0	0	41.0	7	5.0	9.9
UNKNOWN	18	0			16	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.04411	-0.04521	0.03033	0.04290	-1.45	-1.05	-4.06633	-5.08617
55-64	-0.01990	-0.04486	0.02267	0.02673	-0.88	-1.68	-4.43574	-4.12720
65-74	-0.02904	-0.00561	0.02984	0.02788	-0.97	-0.20	-3.58944	-4.49139
AVERAGE	-0.02870	-0.02928	0.01551	0.01760	-1.85	-1.66		
STANDARDIZED	-0.25823	-0.21520	0.13947	0.12986	-1.85	-1.66		
45-74, UNIVARIATE	-0.04406	-0.06241	0.01442	0.01558	-3.06	-4.01	-3.48155	-3.54521
45-74, BIVARIATE	-0.02388	-0.02616	0.01582	0.01800	-1.51	-1.45		
45-74, MULTIVARIATE	-0.01041	0.00264	0.01652	0.01965	-0.63	0.13		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.41 FOR MEN, 1.20 FOR WOMEN.

TABLE 9-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
37-63	2184	1	5	5.4	2006	1	5	14.0	612	1	16	23.5	6	10.9	11.1
64-67	1366	0	0	6.1	1084	2	18	15.8	404	1	25	26.5	11	12.3	12.4
68-71	1896	2	11	6.8	1390	1	7	17.8	564	3	53	29.8	16	13.8	13.9
72-75	2652	2	8	7.6	1908	4	21	20.1	696	2	29	33.6	15	15.6	15.6
76-79	800	0	0	8.5	508	1	20	22.6	156	1	64	37.8	14	17.5	17.5
80-83	1700	3	18	9.5	1176	5	43	25.5	418	1	24	42.6	27	19.7	19.7
84-87	992	2	20	10.6	698	5	72	28.7	240	0	0	48.0	36	22.1	22.1
88-91	1004	0	0	11.9	588	1	17	32.3	232	2	86	54.1	16	24.9	24.7
92-95	522	1	19	13.3	380	1	26	36.4	142	0	0	60.9	19	28.0	27.7
96-170	952	1	11	14.9	616	2	32	41.0	242	3	124	68.5	33	31.5	31.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
37-63	1780	1	6	7.9	1640	2	12	10.2	548	3	55	48.5	15	13.0	13.5
64-67	1578	4	25	6.9	1062	2	19	11.4	366	1	27	48.0	23	13.5	14.0
68-71	2308	0	0	6.1	1728	2	12	12.7	642	3	47	47.5	11	14.0	14.4
72-75	3498	1	3	5.4	2628	2	8	14.2	826	3	36	47.0	9	14.6	14.8
76-79	984	1	10	4.7	822	1	12	15.8	246	1	41	46.5	15	15.2	15.3
80-83	2312	0	0	4.2	1812	2	11	17.6	818	6	73	46.0	16	15.9	15.8
84-87	1576	0	0	3.7	1096	4	36	19.6	482	2	41	45.5	19	16.5	16.2
88-91	1272	1	8	3.2	1030	1	10	21.9	422	3	71	45.0	18	17.2	16.7
92-95	776	0	0	2.8	628	1	16	24.4	260	0	0	44.5	6	17.9	17.2
96-170	1528	1	7	2.5	1226	6	49	27.2	566	2	35	44.1	27	18.6	17.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02791	-0.03192	0.02090	0.03039	1.34	-1.05	-8.55091	-4.47128
55-64	0.02991	0.02729	0.01341	0.01314	2.23	2.08	-7.72638	-7.88337
65-74	0.02999	-0.00269	0.01673	0.01591	1.79	-0.17	-7.21578	-4.45942
AVERAGE	0.02954	0.01042	0.00936	0.00961	3.16	1.08		
STANDARDIZED	0.38095	0.13276	0.12073	0.12329	3.16	1.08		
45-74, UNIVARIATE	0.02950	0.01014	0.00966	0.01009	3.05	1.01	-7.95273	-6.58226
45-74, BIVARIATE	0.02885	0.00757	0.00931	0.01004	3.10	0.75		
45-74, MULTIVARIATE	0.01611	-0.00041	0.00993	0.01051	1.62	-0.04		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.01 FOR MEN, 4.27 FOR WOMEN.

TABLE 9-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NONE	5334	1	2	2.9	5024	9	18	17.6	2186	8	37	32.5	14	13.9	11.3
UNDER 20	1998	2	10	5.4	1644	3	18	21.6	694	1	14	39.2	14	16.7	15.6
20	3222	3	9	9.8	2014	6	30	26.5	474	3	63	47.1	21	20.0	21.4
OVER 20	3436	6	17	18.0	1620	5	31	32.5	342	2	58	56.7	24	24.0	29.3
UNKNOWN	78	0			52	0			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NONE	9940	7	7	6.8	9654	19	20	18.1	4122	20	49	43.7	19	17.7	16.2
UNDER 20	4114	1	2	3.8	2348	0	0	15.2	700	1	14	53.2	3	13.0	14.7
20	2458	1	4	2.1	1110	4	36	12.7	240	1	42	64.7	16	9.5	13.4
OVER 20	1032	0	0	1.2	512	0	0	10.6	92	2	217	78.7	12	7.0	12.1
UNKNOWN	68	0			48	0			22	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.60703	-0.57860	0.27568	0.51321	2.20	-1.13	-7.44263	-6.59651
55-64	0.20466	-0.17924	0.17427	0.29805	1.17	-0.60	-5.64448	-5.61660
65-74	0.18676	0.19871	0.24348	0.27836	0.77	0.71	-5.02856	-4.73174
AVERAGE	0.28396	-0.05901	0.12603	0.18912	2.25	-0.31		
STANDARDIZED	0.30765	-0.01620	0.14051	0.13582	2.19	-0.12		
45-74, UNIVARIATE	0.18440	-0.30938	0.11763	0.19268	1.57	-1.61	-5.88583	-5.64139
45-74, DIVARIATE	0.31805	-0.09638	0.12158	0.19210	2.62	-0.50		
45-74, MULTIVARIATE	0.37257	-0.01302	0.12359	0.19220	3.01	-0.07		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.74 FOR MEN, 2.05 FOR WOMEN.

TABLE 9-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	7372	3	4	4.1	4752	1	2	3.8	1460	2	14	17.1	4	5.3	5.8
BORDER	4288	4	9	9.2	3332	7	21	16.3	1390	6	43	36.1	19	16.2	16.6
DEFINITE	2408	5	21	20.8	2270	15	66	69.6	856	6	70	75.9	47	49.2	47.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	9946	2	2	2.1	4986	2	4	4.6	1198	0	0	10.8	2	3.7	4.9
BORDER	5026	3	6	5.7	4894	7	14	13.2	2086	9	43	30.7	16	12.5	13.7
DEFINITE	2640	4	15	15.4	3792	14	37	37.7	1892	15	79	86.2	40	42.0	38.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.81533	1.00214	0.36072	0.41908	2.26	2.39	-7.10679	-7.78202
55-64	1.46432	1.05716	0.33303	0.31206	4.40	3.39	-7.18957	-6.99525
65-74	0.75148	1.04361	0.35860	0.35003	2.10	2.98	-5.67603	-6.13093
AVERAGE	1.03410	1.03959	0.20212	0.20359	5.12	5.11		
STANDARDIZED	0.79565	0.79882	0.15622	0.15662	5.09	5.10		
45-74, UNIVARIATE	1.11758	1.21734	0.19561	0.19662	5.71	6.19	-6.84730	-7.20502
45-74, BIVARIATE	1.05991	1.02788	0.19750	0.20374	5.37	5.05		
45-74, MULTIVARIATE	0.98159	0.81801	0.20373	0.21066	4.82	3.88		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.66 FOR MEN, 0.01 FOR WOMEN.

TABLE 9-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	11820	9	8	7.1	7808	14	18	18.5	2376	9	38	35.5	15	14.3	15.5
POSSIBLE	1076	0	0	12.0	1136	4	35	26.9	546	1	18	39.4	18	22.1	20.7
DEFINITE	1158	3	26	20.3	1408	5	36	38.9	784	4	51	43.7	36	34.2	27.6
UNKNOWN	14	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	14230	8	6	5.8	8638	9	10	9.2	2422	6	25	18.8	9	8.1	10.2
POSSIBLE	1598	1	6	2.9	2202	2	9	18.9	966	1	10	40.5	8	18.4	18.5
DEFINITE	1772	0	0	1.5	2824	12	42	38.7	1788	17	95	86.9	45	41.7	33.5
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.52969	-0.67948	0.36074	0.83990	1.47	-0.81	-6.56015	-6.75681
55-64	0.37239	0.72251	0.24752	0.23329	1.50	3.10	-5.59365	-6.29906
65-74	0.10519	0.77354	0.31650	0.25885	0.33	2.99	-4.94166	-5.58156
AVERAGE	0.32947	0.68720	0.17152	0.16972	1.92	4.05		
STANDARDIZED	0.24171	0.55458	0.12026	0.14130	2.01	3.92		
45-74, UNIVARIATE	0.43794	0.81947	0.17014	0.14689	2.57	5.58	-5.85455	-6.41793
45-74, BIVARIATE	0.28999	0.59717	0.17503	0.15496	1.66	3.85		
45-74, MULTIVARIATE	0.04604	0.26223	0.19027	0.17066	0.24	1.54		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.84 FOR MEN, 2.78 FOR WOMEN.

TABLE 9-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	13578	12	9	******	9642	14	15	14.9	3420	14	41	******	15	15.0	15.6
POSSIBLE	274	0	0	******	394	3	76	55.5	124	0	0	******	38	36.3	33.1
DEFINITE	216	0	0	******	318	6	189	201.5	162	0	0	******	86	87.1	69.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	17294	9	5	******	12934	15	12	12.0	4754	15	32	32.3	11	11.4	12.5
POSSIBLE	204	0	0	******	420	3	71	46.1	222	3	135	102.9	71	47.1	41.9
DEFINITE	114	0	0	******	318	5	157	173.9	200	6	300	317.9	174	190.0	138.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	*******	*******	*******	*******	****	****	********	********
55-64	1.31983	1.35305	0.23879	0.24769	5.53	5.46	-5.81001	-6.02923
65-74	*******	1.17285	*******	0.23891	****	4.91	********	-5.03549
AVERAGE	1.31983	1.25970	0.23879	0.17196	5.53	7.33		
STANDARDIZED	0.51293	0.47971	0.09280	0.06536	5.53	7.34		
45-74, UNIVARIATE	0.88553	1.42327	0.21220	0.16452	4.17	8.65	-5.80357	-6.07811
45-74, BIVARIATE	0.75569	1.21689	0.21463	0.16911	3.52	7.20		
45-74, MULTIVARIATE	0.31369	0.74231	0.24207	0.20424	1.30	3.63		

CHI SQUARE (1 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.27 FOR WOMEN.

TABLE 9-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	13864	10	7	7.2	10070	23	23	22.8	3502	12	34	34.3	16	16.4	16.8
YES	204	2	98	98.0	284	0	0	0.0	204	2	98	98.0	58	57.8	42.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	17494	9	5	5.1	13400	22	16	16.4	5074	22	43	43.4	15	14.7	14.9
YES	118	0	0	0.0	272	1	37	36.8	102	2	196	196.1	61	61.0	46.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	2.62785	********	0.78112	*******	3.36	*****	-6.53988	********
55-64	********	0.81026	*******	1.02616	*****	0.79	********	-5.71553
65-74	1.06414	1.54031	0.77065	0.75250	1.38	2.05	-4.97616	-4.73899
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.26800	1.42954	0.52461	0.59697	2.42	2.39	-5.71652	-5.82399
45-74, BIVARIATE	0.92704	1.13237	0.53104	0.59988	1.75	1.89		
45-74, MULTIVARIATE	0.86764	1.22741	0.53502	0.60631	1.62	2.02		

TABLE 9-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	13388	10	7	7.5	9622	19	20	19.7	3296	11	33	33.4	15	15.2	15.8
YES	680	2	29	29.4	732	4	55	54.6	410	3	73	73.2	49	49.4	40.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	16960	8	5	4.7	12790	20	16	15.6	4642	16	34	34.5	13	12.8	13.6
YES	652	1	15	15.3	882	3	34	34.0	534	8	150	149.8	58	58.0	44.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.37499	1.18126	0.77660	1.06217	1.77	1.11	-6.50489	-6.96508
55-64	1.02491	0.78080	0.55281	0.62111	1.85	1.26	-5.53026	-5.76441
65-74	0.79307	1.49286	0.65559	0.43794	1.21	3.41	-5.00273	-4.97025
AVERAGE	1.03057	1.24874	0.37121	0.33918	2.78	3.68		
STANDARDIZED	0.27033	0.31713	0.09558	0.08975	2.83	3.53		
45-74, UNIVARIATE	1.18509	1.52107	0.37053	0.32726	3.20	4.65	-5.79248	-5.96568
45-74, BIVARIATE	0.95578	1.18932	0.37522	0.33264	2.55	3.58		
45-74, MULTIVARIATE	0.61601	1.01067	0.37891	0.33594	1.63	3.01		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.33 FOR MEN, 0.88 FOR WOMEN.

TABLE 9-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	13806	12	9	8.7	9984	21	21	21.0	3524	11	31	31.2	16	16.1	16.5
YES	220	0	0	0.0	336	2	60	59.5	174	3	172	172.4	68	68.5	54.3
UNKNOWN	42	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	17006	8	5	4.7	13244	23	17	17.4	5010	22	44	43.9	15	15.0	15.0
YES	564	1	18	17.7	388	0	0	0.0	150	2	133	133.3	27	27.2	29.0
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	********	1.32944	*******	1.06239	*****	1.25	********	-6.96779
55-64	1.04801	********	0.74421	*******	1.41	*****	-5.46685	********
65-74	1.73784	1.12887	0.66085	0.74803	2.63	1.51	-5.07005	-4.72618
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.45792	0.59639	0.47495	0.59505	3.07	1.00	-5.73459	-5.80405
45-74, BIVARIATE	1.20057	0.66442	0.47879	0.59650	2.51	1.11		
45-74, MULTIVARIATE	0.59840	-0.31053	0.49265	0.63181	1.21	-0.49		

TABLE 9-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	13688	11	8	8.0	9974	21	21	21.1	3544	14	40	39.5	17	16.9	17.0
YES	342	1	29	29.2	346	2	58	57.8	154	0	0	0.0	36	35.6	31.2
UNKNOWN	38	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	17372	8	5	4.6	13396	21	16	15.7	5060	23	45	45.5	15	14.5	14.7
YES	200	1	50	50.0	240	2	83	83.3	100	1	100	100.0	74	74.1	64.0
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.29583	2.39399	1.04735	1.06546	1.24	2.25	-6.43162	-6.98911
55-64	1.01733	1.68436	0.74409	0.74582	1.37	2.26	-5.46585	-5.76190
65-74	********	0.79953	*******	1.03164	*****	0.78	********	-4.69135
AVERAGE	*******	1.62735	*******	0.52571	****	3.10		
STANDARDIZED	*******	0.20873	*******	0.06570	****	3.18		
45-74, UNIVARIATE	0.74915	1.64198	0.59795	0.52254	1.25	3.14	-5.68602	-5.83919
45-74, BIVARIATE	0.60967	1.48431	0.59945	0.52548	1.02	2.82		
45-74, MULTIVARIATE	0.36359	0.95070	0.61126	0.54693	0.59	1.74		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.17 FOR WOMEN.

TABLE 9-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	13650	10	7	7.3	9806	21	21	21.4	3434	13	38	37.9	16	16.4	16.7
YES	418	2	48	47.8	548	2	36	36.5	272	1	37	36.8	40	40.4	32.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	17264	9	5	5.2	13138	19	14	14.5	4830	19	39	39.3	13	13.3	14.0
YES	348	0	0	0.0	534	4	75	74.9	346	5	145	144.5	73	73.3	53.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.88473	********	0.77780	*******	2.42	*****	-6.52430	********
55-64	0.53613	1.65692	0.74263	0.55370	0.72	2.99	-5.44879	-5.84278
65-74	-0.02949	1.32259	1.04159	0.50892	-0.03	2.60	-4.87578	-4.83712
AVERAGE	0.92534	********	0.47739	*******	1.94	*****		
STANDARDIZED	0.21099	********	0.09666	*******	2.18	*****		
45-74, UNIVARIATE	0.90834	1.71574	0.47374	0.36619	1.92	4.69	-5.71889	-5.92374
45-74, BIVARIATE	0.67624	1.34153	0.47679	0.37192	1.42	3.61		
45-74, MULTIVARIATE	0.54075	0.71019	0.48612	0.40671	1.11	1.75		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.64 FOR MEN.

TABLE 9-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: ATHEROTHROMBOTIC BRAIN INFARCTION
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CEREBROVASCULAR ACCIDENT AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14068	12	9		10354	23	22		3706	14	38		17		
NO	13246	9	7	6.8	9498	21	22	22.1	3300	13	39	39.4	17	16.5	16.8
YES	822	3	36	36.5	856	2	23	23.4	406	1	25	24.6	29	28.8	24.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17612	9	5		13672	23	17		5176	24	46		15		
NO	17024	8	5	4.7	12808	19	15	14.8	4668	18	39	38.6	13	13.0	13.8
YES	588	1	17	17.0	864	4	46	46.3	508	6	118	118.1	56	56.1	42.5
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.68706	1.28868	0.66862	1.06232	2.52	1.21	-6.59972	-6.96885
55-64	0.05544	1.14444	0.74174	0.55238	0.07	2.07	-5.41673	-5.81727
65-74	-0.47260	1.13556	1.04043	0.47612	-0.45	2.39	-4.83567	-4.85723
AVERAGE	0.69059	1.15477	0.44819	0.34150	1.54	3.38		
STANDARDIZED	0.20325	0.29108	0.11618	0.08683	1.75	3.35		
45-74, UNIVARIATE	0.55853	1.46792	0.43700	0.33797	1.28	4.34	-5.70989	-5.94629
45-74, BIVARIATE	0.38134	1.13065	0.43911	0.34318	0.87	3.29		
45-74, MULTIVARIATE	0.20019	0.66390	0.44447	0.36751	0.45	1.81		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.20 FOR MEN, 0.02 FOR WOMEN.

TABLE 10-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
074-109	864	1	12	14.1	572	2	35	28.1	158	2	127	60.2	31	21.6	24.9
110-119	2376	5	21	15.3	1260	5	40	32.6	322	3	93	60.0	33	24.8	27.5
120-129	3064	3	10	16.5	1904	3	16	37.9	484	2	41	59.8	15	28.4	30.4
130-139	3048	4	13	17.8	1950	5	26	44.0	678	4	59	59.6	23	32.5	33.6
140-149	2008	6	30	19.3	1546	12	78	51.1	588	4	68	59.3	53	37.3	37.1
150-159	1222	3	25	20.8	1058	11	104	59.3	454	0	0	59.1	51	42.7	41.0
160-169	644	1	16	22.5	730	4	55	68.9	312	1	32	58.9	36	48.9	45.3
170-179	356	1	28	24.3	498	2	40	79.9	194	1	52	58.7	38	56.0	50.1
180-189	224	1	45	26.2	304	4	132	92.7	128	0	0	58.5	76	64.2	55.3
190-300	220		0	28.4	448	4	89	107.5	220	4	182	58.2	90	73.5	61.1
UNKNOWN	0				0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
074-109	1584	1	6	1.3	522	1	19	7.8	104	0	0	23.3	9	5.3	6.7
110-119	3066	0	0	1.7	1272	1	8	9.4	276	0	0	25.8	2	6.7	8.1
120-129	3490	1	3	2.4	1848	1	5	11.3	408	2	49	28.7	7	8.4	9.7
130-139	3484	0	0	3.3	2310	3	13	13.5	706	2	28	31.8	8	10.5	11.7
140-149	2142	1	5	4.6	2002	3	15	16.1	826	4	48	35.2	16	13.2	14.1
150-159	1530	0	0	6.3	1816	4	22	19.3	780	3	38	39.1	17	16.6	17.0
160-169	902	1	11	8.7	1340	2	15	23.1	648	3	46	43.3	21	20.8	20.5
170-179	564	2	35	11.9	954	4	42	27.7	516	1	19	48.0	34	26.2	24.7
180-189	422	0	0	16.4	688	3	44	33.2	372	1	27	53.2	27	32.9	29.7
190-300	466	3	64	22.6	956	4	42	39.7	564	5	89	59.0	60	41.2	35.8
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00777	0.03206	0.00933	0.00679	0.83	4.72	-6.68103	-11.64622
55-64	0.01509	0.01808	0.00489	0.00569	3.09	3.18	-6.76018	-8.35401
65-74	-0.00037	0.01039	0.00873	0.00764	-0.04	1.36	-4.36806	-6.45488
AVERAGE	0.01077	0.02055	0.00388	0.00379	2.78	5.42		
STANDARDIZED	0.24983	0.53567	0.09027	0.09688	2.77	5.53		
45-74, UNIVARIATE	0.01372	0.02289	0.00381	0.00356	3.60	6.43	-6.88152	-9.25232
45-74, BIVARIATE	0.01008	0.01868	0.00391	0.00404	2.57	4.62		
45-74, MULTIVARIATE	0.00706	0.01276	0.00426	0.00461	1.66	2.77		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.51 FOR MEN, 4.83 FOR WOMEN.

TABLE 10-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
020-069	858	4	47	15.8	796	4	50	47.9	416	5	120	83.6	63	37.5	35.9
070-074	1776	1	6	16.3	1416	5	35	48.6	602	4	66	73.3	26	36.8	35.7
075-079	1412	2	14	16.9	1058	7	66	49.4	346	4	116	64.1	46	36.1	35.5
080-084	3432	6	17	17.5	2302	12	52	50.2	792	3	38	56.1	32	35.5	35.3
085-089	1868	2	11	18.1	1120	3	27	51.0	366	0	0	49.1	15	34.8	35.1
090-094	1962	2	10	18.7	1454	5	34	51.8	472	1	21	43.0	21	34.1	34.9
095-099	920	2	22	19.3	650	7	108	52.6	156	1	64	37.6	58	33.5	34.7
100-104	992	2	20	20.0	730	6	82	53.5	188	1	53	32.9	47	32.9	34.5
105-109	304	2	66	20.7	200	1	50	54.3	40	0	0	28.8	55	32.3	34.3
110-160	502	2	40	21.4	544	2	37	55.2	160	2	125	25.2	50	31.7	34.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
020-069	1610	1	6	1.9	902	1	11	9.3	438	1	23	33.4	10	8.2	8.8
070-074	2828	0	0	2.4	1750	3	17	11.0	646	4	62	35.1	13	9.6	10.1
075-079	1990	1	5	3.1	1258	1	8	13.0	444	1	23	36.9	8	11.2	11.7
080-084	4154	2	5	3.9	2974	5	17	15.3	1188	0	0	38.9	8	13.1	13.4
085-089	2088	1	5	5.0	1662	4	24	18.1	520	4	77	40.9	21	15.3	15.5
090-094	2244	0	0	6.3	2152	2	9	21.3	844	7	83	43.0	17	17.9	17.8
095-099	852	1	12	8.0	880	2	23	25.1	344	1	29	45.3	19	21.0	20.6
100-104	872	1	11	10.2	1040	2	19	29.6	396	2	51	47.6	22	24.5	23.7
105-109	290	0	0	13.0	304	2	66	34.8	86	0	0	50.1	29	28.7	27.3
110-160	722	2	28	16.5	786	4	51	41.1	294	1	34	52.7	39	33.5	31.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00673	0.04794	0.01648	0.01846	0.41	2.60	-6.20771	-11.10553
55-64	0.00317	0.03303	0.01062	0.01264	0.30	2.61	-4.85296	-8.51029
65-74	-0.02697	0.01027	0.01795	0.01606	-1.50	0.64	-2.25349	-5.69607
AVERAGE	-0.00197	0.02963	0.00799	0.00875	-0.25	3.39		
STANDARDIZED	-0.02107	0.38835	0.10197	0.11402	-0.21	3.41		
45-74, UNIVARIATE	-0.00378	0.03143	0.00820	0.00863	-0.46	3.64	-4.62981	-8.53365
45-74, BIVARIATE	-0.00115	0.02847	0.00797	0.00893	-0.14	3.19		
45-74, MULTIVARIATE	-0.00545	0.01809	0.00798	0.00946	-0.68	1.91		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.45 FOR MEN, 2.51 FOR WOMEN.

TABLE 10-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
096-189	1592	1	6	11.6	1262	3	24	31.7	466	3	64	62.2	21	25.3	24.6
190-204	1360	3	22	13.1	1070	2	19	35.7	434	1	23	61.5	21	27.7	27.1
205-219	1998	3	15	14.7	1278	8	63	40.3	466	4	86	60.7	40	30.4	30.0
220-234	2064	4	19	16.6	1576	7	44	45.4	554	4	72	59.9	36	33.4	33.1
235-249	1746	2	11	18.6	1388	8	58	51.2	412	3	73	59.2	37	36.6	36.5
250-264	1564	4	26	21.0	1248	4	32	57.7	382	1	26	58.4	28	40.1	40.3
265-279	1124	1	9	23.6	880	5	57	65.0	304	1	33	57.7	30	44.0	44.5
280-294	762	2	26	26.6	570	7	123	73.3	258	3	116	57.0	75	48.3	49.1
295-309	450	1	22	29.9	338	3	89	82.5	108	0	0	56.3	45	53.0	54.2
310-1124	634	4	63	33.7	406	4	99	92.9	134	1	75	55.6	77	58.1	59.9
UNKNOWN	732	0			254	1			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
096-189	1728	0	0	2.9	602	0	0	11.0	186	0	0	30.7	0	9.2	9.5
190-204	1678	0	0	3.2	748	0	0	12.0	246	4	163	32.3	15	10.1	10.4
205-219	2062	0	0	3.6	1082	2	18	13.1	394	0	0	34.0	6	11.1	11.4
220-234	2444	0	0	4.0	1626	3	18	14.4	566	1	18	35.8	9	12.2	12.5
235-249	2184	2	9	4.4	1604	2	12	15.7	668	2	30	37.7	13	13.5	13.6
250-264	1834	1	5	4.9	1788	5	28	17.2	686	1	15	39.6	16	14.8	14.9
265-279	1530	2	13	5.4	1676	4	24	18.8	722	4	55	41.7	25	16.3	16.3
280-294	1148	1	9	6.0	1368	2	15	20.5	520	2	38	43.9	16	17.9	17.8
295-309	742	0	0	6.6	996	1	10	22.4	384	2	52	46.2	14	19.7	19.5
310-1124	1320	2	15	7.4	1774	5	28	24.5	772	5	65	48.6	31	21.7	21.3
UNKNOWN	980	1			444	2			56	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00793	0.00691	0.00347	0.00242	2.28	2.86	-7.51156	-8.71134
55-64	0.00807	0.00595	0.00294	0.00409	2.74	1.46	-6.52729	-7.20418
65-74	-0.00085	0.00343	0.00536	0.00463	-0.16	0.74	-4.21796	-5.71242
AVERAGE	0.00669	0.00612	0.00207	0.00190	3.23	3.22		
STANDARDIZED	0.27739	0.28298	0.08604	0.08805	3.22	3.21		
45-74, UNIVARIATE	0.00621	0.00640	0.00211	0.00175	2.95	3.66	-6.41689	-7.46618
45-74, BIVARIATE	0.00667	0.00597	0.00215	0.00211	3.09	2.83		
45-74, MULTIVARIATE	0.00642	0.00553	0.00215	0.00196	2.98	2.82		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.32 FOR MEN, 0.45 FOR WOMEN.

TABLE 10-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
062-179	1836	3	16	15.7	1234	5	41	35.7	152	1	66	42.6	28	26.5	27.2
180-199	866	2	23	16.4	644	0	0	38.7	84	0	0	45.6	13	28.4	29.1
200-219	1090	2	18	17.1	848	6	71	42.0	258	2	78	48.9	46	30.5	31.0
220-239	1388	3	22	17.9	1058	3	28	45.6	356	2	56	52.4	29	32.8	33.1
240-259	1892	2	11	18.7	1520	4	26	49.4	710	4	56	56.2	24	35.2	35.3
260-279	1890	3	16	19.5	1580	10	63	53.6	662	3	45	60.2	39	37.8	37.7
280-299	1642	3	18	20.4	1284	9	70	58.1	536	1	19	64.5	38	40.6	40.2
300-319	1142	3	26	21.3	902	6	67	63.0	426	4	94	69.1	53	43.5	42.9
320-339	798	2	25	22.3	456	6	132	68.3	232	3	129	74.0	74	46.7	45.8
340-968	688	2	29	23.3	466	2	43	74.1	100	1	100	79.3	40	50.1	48.9
UNKNOWN	794	0			278	1			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
062-179	2154	0	0	2.0	1124	0	0	9.6	102	1	98	32.1	3	6.9	8.2
180-199	902	1	11	2.3	626	0	0	10.8	78	1	128	33.5	12	8.0	9.2
200-219	1628	0	0	2.8	1016	0	0	12.2	228	1	44	34.8	3	9.2	10.4
220-239	1706	0	0	3.3	1062	4	38	13.7	284	0	0	36.3	13	10.7	11.7
240-259	2214	1	5	4.0	1428	5	35	15.4	528	0	0	37.7	14	12.4	13.1
260-279	2324	0	0	4.7	1866	4	21	17.3	830	2	24	39.3	12	14.4	14.8
280-299	1932	0	0	5.6	1844	2	11	19.4	888	5	56	40.9	15	16.7	16.6
300-319	1644	2	12	6.7	1766	3	17	21.8	962	5	52	42.6	23	19.3	18.7
320-339	1018	2	20	8.0	1170	2	17	24.5	622	3	48	44.3	25	22.4	21.1
340-968	1044	2	19	9.5	1316	4	30	27.5	608	3	49	46.1	30	25.9	23.7
UNKNOWN	1084	1			490	2			70	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00219	0.00876	0.00314	0.00285	0.70	3.07	-6.13193	-9.32665
55-64	0.00410	0.00584	0.00222	0.00358	1.84	1.63	-5.63209	-7.24183
65-74	0.00350	0.00202	0.00496	0.00468	0.70	0.43	-5.35187	-5.38454
AVERAGE	0.00347	0.00659	0.00171	0.00201	2.03	3.27		
STANDARDIZED	0.19915	0.36170	0.09787	0.11562	2.03	3.13		
45-74, UNIVARIATE	0.00357	0.00740	0.00166	0.00191	2.16	3.87	-5.84226	-7.84757
45-74, BIVARIATE	0.00328	0.00593	0.00176	0.00240	1.86	2.47		
45-74, MULTIVARIATE	-0.00027	0.00192	0.00209	0.00313	-0.13	0.61		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.25 FOR MEN, 1.57 FOR WOMEN.

TABLE 10-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
029-059	392	1	26	13.8	284	1	35	35.1	82	1	122	65.0	40	26.8	27.6
060-069	2538	2	8	15.2	1610	4	25	38.9	590	6	102	63.2	25	29.3	29.9
070-079	4512	6	13	16.6	3150	16	51	43.1	1044	4	38	61.5	30	31.9	32.4
080-089	3264	7	21	18.2	2498	7	28	47.8	792	3	38	59.8	26	34.8	35.1
090-099	1514	4	26	20.0	1254	8	64	52.9	522	4	77	58.1	49	38.0	37.9
100-109	610	1	16	21.9	516	3	58	58.6	172	1	58	56.5	39	41.4	41.1
110-119	284	2	70	24.0	268	4	149	64.9	90	0	0	55.0	93	45.1	44.5
120-129	136	0	0	26.3	146	0	0	71.9	60	1	167	53.4	29	49.2	48.1
130-139	74	0	0	28.9	76	1	132	79.6	46	0	0	52.0	51	53.6	52.1
140-524	240	2	83	31.6	282	7	248	88.1	114	1	88	50.5	157	58.5	56.3
UNKNOWN	462	0			186	1			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
029-059	358	0	0	2.1	276	0	0	10.0	78	1	128	32.5	14	8.7	9.2
060-069	2998	1	3	2.6	1762	1	6	11.6	624	2	32	34.7	7	10.1	10.6
070-079	5896	2	3	3.2	4248	4	9	13.5	1584	8	51	37.1	12	11.7	12.1
080-089	4466	3	7	3.9	3714	6	16	15.6	1356	2	15	39.6	12	13.6	13.9
090-099	1842	0	0	4.8	1718	4	23	18.0	708	3	42	42.4	16	15.8	16.0
100-109	710	0	0	6.0	740	2	27	20.8	366	1	27	45.3	17	18.3	18.4
110-119	332	0	0	7.4	304	1	33	24.1	138	0	0	48.4	13	21.2	21.1
120-129	118	0	0	9.1	242	1	41	27.9	118	2	169	51.7	63	24.6	24.2
130-139	50	0	0	11.2	70	1	143	32.2	46	0	0	55.3	60	28.5	27.8
140-524	196	2	102	13.9	330	5	152	37.3	136	2	147	59.1	136	33.1	32.0
UNKNOWN	684	1			304	1			46	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00923	0.02109	0.00369	0.00415	2.50	5.08	-6.39525	-8.94227
55-64	0.01034	0.01463	0.00249	0.00228	4.16	6.41	-5.51995	-7.01202
65-74	-0.00283	0.00671	0.00891	0.00559	-0.32	1.20	-4.17453	-5.40012
AVERAGE	0.00934	0.01506	0.00201	0.00188	4.65	7.99		
STANDARDIZED	0.24006	0.36480	0.05147	0.04488	4.66	8.13		
45-74, UNIVARIATE	0.00872	0.01490	0.00193	0.00182	4.51	8.19	-5.70130	-7.17191
45-74, BIVARIATE	0.00799	0.01391	0.00198	0.00190	4.03	7.34		
45-74, MULTIVARIATE	0.00757	0.01190	0.00199	0.00215	3.81	5.53		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.03 FOR MEN, 4.37 FOR WOMEN.

TABLE 10-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
065-099	1198	0	0	26.9	912	8	88	65.1	348	6	172	89.9	57	49.9	49.0
100-104	866	5	58	24.4	556	3	54	61.4	218	0	0	80.8	49	45.9	45.3
105-109	1292	5	39	22.1	844	6	71	58.0	318	0	0	72.6	45	42.3	41.9
110-114	1534	3	20	20.0	1220	5	41	54.7	396	4	101	65.3	38	38.9	38.8
115-119	1794	2	11	18.2	1420	6	42	51.6	500	3	60	58.7	30	35.8	35.9
120-124	1928	4	21	16.5	1472	5	34	48.6	474	2	42	52.7	28	33.0	33.2
125-129	1572	2	13	14.9	1192	8	67	45.9	402	3	75	47.3	41	30.3	30.7
130-134	1338	3	22	13.5	1004	4	40	43.3	360	0	0	42.5	26	27.9	28.4
135-139	794	0	0	12.3	610	3	49	40.8	196	1	51	38.2	25	25.7	26.2
140-272	1708	1	6	11.1	1038	4	39	38.5	326	2	61	34.3	23	23.6	24.3
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
065-099	2096	1	5	2.4	1090	5	46	18.4	494	0	0	44.9	16	12.5	13.5
100-104	1564	0	0	2.7	866	3	35	18.5	332	3	90	44.1	22	13.0	13.8
105-109	1996	0	0	3.0	1284	3	23	18.6	372	3	81	43.2	16	13.4	14.1
110-114	2080	0	0	3.4	1370	0	0	18.7	502	1	20	42.4	3	13.9	14.5
115-119	1972	1	5	3.8	1504	1	7	18.8	542	3	55	41.6	12	14.5	14.8
120-124	1712	0	0	4.3	1504	1	7	18.9	520	1	19	40.8	5	15.0	15.2
125-129	1416	2	14	4.9	1250	1	8	19.0	474	3	63	40.0	19	15.5	15.5
130-134	1072	1	9	5.5	1032	2	19	19.1	364	1	27	39.2	16	16.1	15.9
135-139	874	0	0	6.2	818	1	12	19.2	360	1	28	38.5	10	16.7	16.3
140-272	2868	4	14	7.0	2990	9	30	19.3	1240	5	40	37.7	25	17.3	16.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.01972	0.02431	0.01305	0.00937	-1.51	2.59	-3.29688	-10.02735
55-64	-0.01181	0.00113	0.00928	0.00857	-1.27	0.13	-3.17608	-5.71345
65-74	-0.02166	-0.00393	0.01405	0.00994	-1.54	-0.40	-1.88879	-4.32006
AVERAGE	-0.01608	0.00719	0.00666	0.00534	-2.41	1.35		
STANDARDIZED	-0.24971	0.16625	0.10408	0.11967	-2.40	1.39		
45-74, UNIVARIATE	-0.01672	0.00727	0.00663	0.00535	-2.52	1.36	-2.96665	-6.69712
45-74, BIVARIATE	-0.01575	0.00466	0.00663	0.00557	-2.38	0.84		
45-74, MULTIVARIATE	-0.01928	-0.00164	0.00692	0.00595	-2.79	-0.28		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.45 FOR MEN, 5.09 FOR WOMEN.

TABLE 10-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
12-31	156	0	0	31.0	292	2	68	101.8	218	1	46	88.0	45	82.9	64.3
32-35	154	1	65	28.2	332	5	151	87.4	236	3	127	79.0	125	69.5	57.1
36-39	470	1	21	25.6	614	4	65	75.0	372	2	54	71.0	48	58.3	50.6
40-43	810	2	25	23.3	1154	10	87	64.3	562	4	71	63.8	63	48.9	44.9
44-47	1696	4	24	21.2	1704	6	35	55.1	682	4	59	57.3	34	41.0	39.8
48-51	1782	2	11	19.2	1644	8	49	47.3	568	3	53	51.4	33	34.3	35.3
52-55	2640	4	15	17.5	1790	6	34	40.5	440	3	68	46.2	27	28.8	31.3
56-59	2478	6	24	15.9	1352	9	67	34.7	270	1	37	41.4	39	24.1	27.8
60-63	1850	4	22	14.4	800	2	25	29.8	114	0	0	37.2	22	20.2	24.6
64-85	1982	1	5	13.1	558	0	0	25.5	62	0	0	33.4	4	16.9	21.8
UNKNOWN	8	0			30	0			14	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
04-19	90	0	0	32.6	276	1	36	46.5	268	3	112	72.7	63	62.0	39.9
20-23	200	1	50	22.7	402	1	25	37.5	336	1	30	60.6	32	44.7	32.3
24-27	404	1	25	15.7	878	5	57	30.2	656	2	30	50.4	41	32.2	26.1
28-31	992	0	0	10.9	1816	5	28	24.3	1034	5	48	42.0	26	23.2	21.2
32-35	2192	2	9	7.6	2930	5	17	19.5	1246	8	64	34.9	24	16.7	17.1
36-39	3042	2	7	5.3	2888	3	10	15.7	870	1	11	29.0	9	12.0	13.9
40-43	4134	2	5	3.7	2446	5	20	12.6	508	1	20	24.2	11	8.7	11.2
44-47	3282	1	3	2.5	1314	0	0	10.1	208	0	0	20.1	2	6.2	9.1
48-51	2062	0	0	1.8	504	0	0	8.2	58	0	0	16.7	0	4.5	7.4
52-77	1234	0	0	1.2	238	1	42	6.6	16	0	0	13.9	7	3.2	5.9
UNKNOWN	18	0			16	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	-0.02404	-0.09136	0.02166	0.04019	-1.11	-2.27	-4.35551	-3.38225
55-64	-0.03887	-0.05465	0.01476	0.02457	-2.63	-2.22	-2.70787	-3.68381
65-74	-0.02723	-0.04632	0.02437	0.02877	-1.12	-1.61	-3.20556	-3.38224
AVERAGE	-0.03278	-0.05829	0.01091	0.01694	-3.00	-3.44		
STANDARDIZED	-0.29483	-0.43127	0.09822	0.12549	-3.00	-3.44		
45-74, UNIVARIATE	-0.04456	-0.08244	0.01021	0.01514	-4.36	-5.44	-2.74610	-2.89401
45-74, BIVARIATE	-0.03029	-0.05303	0.01108	0.01737	-2.73	-3.05		
45-74, MULTIVARIATE	-0.02075	-0.03518	0.01137	0.01926	-1.83	-1.83		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.39 FOR MEN, 0.87 FOR WOMEN.

TABLE 10-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
37-63	2178	1	5	12.0	2008	5	25	36.8	592	4	68	58.2	21	27.2	27.1
64-67	1356	3	22	13.3	1062	3	28	40.2	404	3	74	58.6	32	29.2	29.1
68-71	1894	4	21	14.7	1388	4	29	43.9	540	1	19	58.9	24	31.3	31.3
72-75	2658	3	11	16.2	1894	10	53	47.9	670	5	75	59.3	34	33.6	33.6
76-79	796	2	25	17.9	498	3	60	52.3	142	0	0	59.6	35	36.0	36.0
80-83	1702	4	24	19.8	1174	11	94	57.1	404	3	74	60.0	55	38.6	38.7
84-87	998	0	0	21.9	682	5	73	62.3	212	0	0	60.3	26	41.4	41.5
88-91	988	3	30	24.1	580	4	69	68.0	210	1	48	60.7	45	44.4	44.6
92-95	520	2	38	26.7	376	3	80	74.2	138	2	145	61.0	68	47.6	47.9
96-170	936	3	32	29.4	608	4	66	81.0	226	2	88	61.4	51	51.1	51.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
37-63	1782	0	0	3.1	1664	4	24	20.0	532	4	75	56.4	20	16.0	16.7
64-67	1582	0	0	3.5	1066	1	9	19.7	364	2	55	51.7	10	15.8	16.4
68-71	2318	1	4	3.9	1720	3	17	19.5	646	2	31	47.5	13	15.7	16.0
72-75	3498	2	6	4.3	2632	4	15	19.2	814	3	37	43.6	13	15.5	15.6
76-79	990	0	0	4.8	824	1	12	18.9	252	2	79	40.0	15	15.3	15.3
80-83	2316	2	9	5.4	1810	3	17	18.7	834	2	24	36.7	14	15.1	14.9
84-87	1580	2	13	6.0	1084	5	46	18.4	476	1	21	33.7	25	15.0	14.6
88-91	1268	0	0	6.7	1028	3	29	18.2	428	2	47	30.9	18	14.8	14.3
92-95	788	0	0	7.4	646	2	31	17.9	270	3	111	28.4	29	14.6	14.0
96-170	1528	2	13	8.3	1234	0	0	17.7	584	0	0	26.0	6	14.5	13.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02493	0.02734	0.01470	0.02398	1.70	1.14	-7.57216	-9.07729
55-64	0.02212	-0.00348	0.00949	0.01560	2.33	-0.22	-6.27473	-5.30057
65-74	0.00148	-0.02162	0.01676	0.01815	0.09	-1.19	-4.53288	-3.13356
AVERAGE	0.01899	-0.00365	0.00720	0.01061	2.64	-0.34		
STANDARDIZED	0.24478	-0.04217	0.09253	0.13588	2.65	-0.31		
45-74, UNIVARIATE	0.01759	-0.00285	0.00734	0.01073	2.40	-0.27	-6.29739	-5.56301
45-74, BIVARIATE	0.01795	-0.00563	0.00716	0.01065	2.50	-0.53		
45-74, MULTIVARIATE	0.00776	-0.01943	0.00761	0.01149	1.02	-1.69		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.36 FOR MEN, 2.65 FOR WOMEN.

TABLE 10-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NONE	5330	5	9	10.9	5032	13	26	27.5	2152	10	46	54.4	22	25.1	20.8
UNDER 20	1986	3	15	15.0	1618	10	62	43.2	642	6	93	61.4	45	32.3	30.2
20	3202	9	28	20.5	2002	10	50	67.6	430	4	93	69.2	41	41.6	43.7
OVER 20	3430	8	23	28.1	1574	18	114	105.7	304	1	33	78.0	51	53.6	63.3
UNKNOWN	78	0			44	1			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NONE	9948	5	5	3.5	9692	19	20	18.3	4178	11	26	30.9	15	14.0	11.9
UNDER 20	4136	0	0	5.4	2342	4	17	19.8	674	7	104	57.4	15	16.3	17.2
20	2470	2	8	8.1	1116	0	0	21.5	240	2	83	106.2	10	19.0	25.0
OVER 20	1028	2	19	12.3	510	3	59	23.3	86	1	116	195.0	37	22.1	36.2
UNKNOWN	68	0			48	0			22	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.31550	0.41455	0.16954	0.30954	1.86	1.34	-6.12313	-7.25220
55-64	0.45441	0.07954	0.11810	0.23356	3.85	0.34	-5.19806	-5.60478
65-74	0.12132	0.62540	0.20812	0.22743	0.58	2.75	-4.50919	-5.08074
AVERAGE	0.35776	0.37162	0.08785	0.14419	4.07	2.58		
STANDARDIZED	0.39550	0.28531	0.09896	0.10500	4.00	2.72		
45-74, UNIVARIATE	0.25532	0.15175	0.08369	0.14366	3.05	1.06	-5.29062	-5.87212
45-74, BIVARIATE	0.37479	0.37384	0.08674	0.14488	4.32	2.58		
45-74, MULTIVARIATE	0.41048	0.50705	0.08781	0.14763	4.67	3.43		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.02 FOR MEN, 2.83 FOR WOMEN.

TABLE 10-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	7378	10	14	14.1	4704	12	26	30.7	1398	10	72	61.0	24	24.7	26.1
BORDER	4252	9	21	19.4	3270	22	67	52.4	1346	5	37	59.0	41	37.6	37.5
DEFINITE	2396	6	25	26.6	2296	18	78	89.0	794	6	76	57.0	55	57.1	53.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	9952	2	2	1.7	4984	6	12	8.6	1184	4	34	26.5	7	6.1	8.1
BORDER	5030	2	4	5.4	4904	5	10	17.3	2074	6	29	37.2	11	14.5	15.3
DEFINITE	2668	5	19	17.4	3820	15	39	34.7	1942	11	57	52.2	37	34.2	29.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.32034	1.17823	0.24954	0.43488	1.28	2.71	-5.87014	-8.01247
55-64	0.53827	0.70275	0.17203	0.26385	3.13	2.66	-5.08687	-6.36805
65-74	-0.03400	0.34135	0.28686	0.30341	-0.12	1.13	-4.39384	-5.23407
AVERAGE	0.36966	0.65648	0.12700	0.18103	2.91	3.63		
STANDARDIZED	0.28499	0.50885	0.09872	0.13996	2.89	3.64		
45-74, UNIVARIATE	0.42183	0.86516	0.12492	0.17654	3.38	4.90	-5.30446	-6.70868
45-74, BIVARIATE	0.36446	0.64441	0.12631	0.18471	2.89	3.49		
45-74, MULTIVARIATE	0.27744	0.56496	0.13230	0.19864	2.10	2.84		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.98 FOR MEN, 2.55 FOR WOMEN.

TABLE 10-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	11786	20	17	15.9	7718	39	51	50.7	2262	15	66	61.7	34	33.2	34.8
POSSIBLE	1060	0	0	22.8	1140	6	53	50.6	534	1	19	57.4	26	38.9	36.0
DEFINITE	1166	5	43	32.5	1410	7	50	50.5	742	5	67	53.5	51	45.7	37.2
UNKNOWN	14	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	14246	5	4	3.8	8628	13	15	15.3	2426	6	25	29.1	9	10.3	12.6
POSSIBLE	1608	2	12	7.2	2208	5	23	20.9	964	6	62	40.2	27	18.4	17.5
DEFINITE	1784	2	11	13.6	2864	8	28	28.6	1810	9	50	55.6	29	32.7	24.3
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.35813	0.63684	0.27208	0.38264	1.32	1.66	-5.74486	-7.17988
55-64	-0.00207	0.31448	0.19509	0.22180	-0.01	1.42	-4.58142	-5.78702
65-74	-0.07294	0.32618	0.27711	0.24577	-0.26	1.33	-4.38180	-5.14049
AVERAGE	0.07260	0.36928	0.13761	0.15125	0.53	2.44		
STANDARDIZED	0.06333	0.30399	0.09555	0.12122	0.66	2.51		
45-74, UNIVARIATE	0.16206	0.57869	0.13641	0.14655	1.19	3.95	-5.00920	-6.18111
45-74, BIVARIATE	0.03344	0.32958	0.13985	0.15462	0.24	2.13		
45-74, MULTIVARIATE	-0.01653	0.10089	0.14958	0.17240	-0.11	0.59		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.52 FOR MEN, 0.58 FOR WOMEN.

TABLE 10-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	13544	22	16	17.1	9556	46	48	47.0	3258	18	55	53.6	33	32.5	33.2
POSSIBLE	266	3	113	29.6	400	1	25	77.1	120	0	0	90.9	51	60.1	54.9
DEFINITE	216	0	0	51.2	314	5	159	126.0	160	3	188	153.4	116	110.7	90.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	17328	8	5	4.5	12956	20	15	15.5	4760	15	32	32.9	12	12.5	13.4
POSSIBLE	206	0	0	17.9	436	2	46	44.6	226	3	133	75.3	58	41.3	35.5
DEFINITE	116	1	86	70.3	316	4	127	127.4	214	3	140	170.5	124	134.8	93.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.55318	1.38002	0.45605	0.56346	1.21	2.45	-5.67702	-7.00988
55-64	0.50070	1.06613	0.24830	0.26799	2.02	3.98	-4.65662	-5.77598
65-74	0.53623	0.83712	0.33430	0.28742	1.60	2.91	-4.52534	-5.01784
AVERAGE	0.51972	1.00500	0.18265	0.18513	2.85	5.43		
STANDARDIZED	0.19256	0.33478	0.06841	0.06139	2.81	5.45		
45-74, UNIVARIATE	0.62083	1.20258	0.18081	0.18290	3.43	6.58	-5.02974	-5.99117
45-74, BIVARIATE	0.50845	0.97931	0.18277	0.18760	2.78	5.22		
45-74, MULTIVARIATE	0.35269	0.53147	0.20972	0.22491	1.68	2.36		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.01 FOR MEN, 0.84 FOR WOMEN.

TABLE 10-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	13828	24	17	17.4	10002	47	47	47.0	3336	18	54	54.0	33	32.8	33.5
YES	198	1	51	50.5	268	5	187	186.6	202	3	149	148.5	135	134.7	104.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	17532	9	5	5.1	13426	25	19	18.6	5098	20	39	39.2	15	15.0	15.1
YES	118	0	0	0.0	282	1	35	35.5	102	1	98	98.0	40	39.8	30.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.07480	********	1.02568	*******	1.05	*****	-5.65977	********
55-64	1.40743	0.64755	0.47878	1.02337	2.94	0.63	-4.65780	-5.58919
65-74	1.03180	0.92782	0.63222	1.03460	1.63	0.90	-4.51816	-4.83985
AVERAGE	1.24672	*******	0.35772	*******	3.49	****		
STANDARDIZED	0.20357	*******	0.05909	*******	3.44	****		
45-74, UNIVARIATE	1.43476	0.98339	0.35426	0.72290	4.05	1.36	-5.02136	-5.80770
45-74, BIVARIATE	1.15593	0.68736	0.36002	0.72520	3.21	0.95		
45-74, MULTIVARIATE	1.20060	0.78937	0.36686	0.73394	3.27	1.08		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.26 FOR MEN.

TABLE 10-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	13358	18	13	13.5	9542	42	44	44.0	3170	18	57	56.8	30	29.9	30.9
YES	668	7	105	104.8	728	10	137	137.4	368	3	82	81.5	113	113.4	99.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	17002	9	5	5.3	12806	19	15	14.8	4666	19	41	40.7	14	13.6	14.3
YES	648	0	0	0.0	902	7	78	77.6	534	2	37	37.5	43	43.2	32.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	2.06960	********	0.44902	*******	4.61	*****	-5.91365	********
55-64	1.15709	1.66720	0.35615	0.44486	3.25	3.75	-4.72380	-5.81711
65-74	0.36666	-0.08429	0.62853	0.74622	0.58	-0.11	-4.46655	-4.80229
AVERAGE	1.32132	*******	0.25503	*******	5.18	****		
STANDARDIZED	0.33876	*******	0.06248	*******	5.42	****		
45-74, UNIVARIATE	1.34916	1.15894	0.25310	0.36526	5.33	3.17	-5.11268	-5.90194
45-74, BIVARIATE	1.18731	0.81196	0.25600	0.37030	4.64	2.19		
45-74, MULTIVARIATE	0.95943	0.38640	0.26083	0.39689	3.68	0.97		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 5.30 FOR MEN.

TABLE 10-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	13764	24	17	17.4	9872	51	52	51.7	3360	20	60	59.5	35	35.2	35.4
YES	220	1	45	45.5	364	1	27	27.5	170	1	59	58.8	40	39.8	32.0
UNKNOWN	42	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	17042	8	5	4.7	13278	25	19	18.8	5028	21	42	41.8	15	15.3	15.2
YES	566	1	18	17.7	390	1	26	25.6	156	0	0	0.0	18	18.0	18.9
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.96377	1.32800	1.02518	1.06239	0.94	1.25	-5.65512	-6.96991
55-64	-0.63640	0.31021	1.01259	1.02240	-0.63	0.30	-4.56210	-5.57807
65-74	-0.01198	********	1.03078	*******	-0.01	*****	-4.41884	********
AVERAGE	0.09940	*******	0.59049	*******	0.17	****		
STANDARDIZED	0.03592	*******	0.09518	*******	0.38	****		
45-74, UNIVARIATE	0.12371	0.16379	0.58873	0.72137	0.21	0.23	-4.94936	-5.78781
45-74, BIVARIATE	-0.10047	0.21803	0.59060	0.72250	-0.17	0.30		
45-74, MULTIVARIATE	-0.51057	-0.76008	0.59812	0.78176	-0.85	-0.97		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.25 FOR MEN.

TABLE 10-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	13662	22	16	16.1	9898	45	45	45.5	3388	20	59	59.0	32	32.3	32.7
YES	326	3	92	92.0	338	7	207	207.1	142	1	70	70.4	136	136.5	122.6
UNKNOWN	38	0			34	0			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	17418	8	5	4.6	13426	20	15	14.9	5088	20	39	39.3	13	13.4	13.6
YES	192	1	52	52.1	246	6	244	243.9	96	1	104	104.2	150	149.8	131.6
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.75840	2.43787	0.62063	1.06566	2.83	2.29	-5.73496	-6.99175
55-64	1.54946	2.84267	0.41407	0.47472	3.74	5.99	-4.69114	-5.81308
65-74	0.17874	0.98772	1.03193	1.03522	0.17	0.95	-4.42724	-4.83787
AVERAGE	1.46995	2.50875	0.32673	0.39997	4.50	6.27		
STANDARDIZED	0.25447	0.31868	0.05582	0.05103	4.56	6.25		
45-74, UNIVARIATE	1.46276	2.44497	0.32408	0.38698	4.51	6.32	-5.03613	-5.92236
45-74, BIVARIATE	1.34314	2.29450	0.32584	0.39055	4.12	5.88		
45-74, MULTIVARIATE	1.36861	1.99474	0.32987	0.41849	4.15	4.77		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.82 FOR MEN, 2.66 FOR WOMEN.

TABLE 10-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	13646	21	15	15.4	9754	41	42	42.0	3310	18	54	54.4	30	30.0	30.8
YES	380	4	105	105.3	516	11	213	213.2	228	3	132	131.6	160	160.1	139.3
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	17308	7	4	4.0	13168	19	14	14.4	4856	17	35	35.0	12	12.2	13.1
YES	342	2	58	58.5	540	7	130	129.6	344	4	116	116.3	106	106.0	80.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.94100	2.68231	0.55058	0.80554	3.53	3.33	-5.78045	-7.11906
55-64	1.65878	2.21882	0.34577	0.44659	4.80	4.97	-4.77027	-5.84507
65-74	0.89933	1.21691	0.63128	0.56142	1.42	2.17	-4.51025	-4.95458
AVERAGE	1.59000	1.96548	0.26563	0.32062	5.99	6.13		
STANDARDIZED	0.32789	0.38768	0.05408	0.06144	6.06	6.31		
45-74, UNIVARIATE	1.70303	2.18378	0.26452	0.31922	6.44	6.84	-5.11161	-6.01576
45-74, BIVARIATE	1.53401	1.83118	0.26734	0.32540	5.74	5.63		
45-74, MULTIVARIATE	1.62630	1.56556	0.27575	0.34547	5.90	4.53		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.64 FOR MEN, 2.89 FOR WOMEN.

TABLE 10-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: INTERMITTENT CLAUDICATION
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF INTERMITTENT CLAUDICATION AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14026	25	18		10270	52	51		3538	21	59		35		
NO	13242	21	16	15.9	9452	39	41	41.3	3186	18	56	56.5	30	30.1	30.9
YES	784	4	51	51.0	818	13	159	158.9	352	3	85	85.2	102	102.4	92.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17650	9	5		13708	26	19		5200	21	40		15		
NO	17064	7	4	4.1	12838	17	13	13.2	4692	15	32	32.0	11	11.3	12.3
YES	586	2	34	34.1	870	9	103	103.4	508	6	118	118.1	87	86.6	69.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.17559	2.12467	0.54804	0.80400	2.15	2.64	-5.75030	-7.10485
55-64	1.37252	2.07394	0.32450	0.41526	4.23	4.99	-4.78899	-5.93115
65-74	0.41696	1.32433	0.62873	0.48764	0.66	2.72	-4.47164	-5.04600
AVERAGE	1.17240	1.80784	0.25519	0.29423	4.59	6.14		
STANDARDIZED	0.31109	0.44682	0.06729	0.07190	4.62	6.21		
45-74, UNIVARIATE	1.23725	2.05355	0.25287	0.29250	4.89	7.02	-5.10532	-6.09247
45-74, BIVARIATE	1.10982	1.73941	0.25465	0.29834	4.36	5.83		
45-74, MULTIVARIATE	1.11098	1.58711	0.25843	0.31266	4.30	5.08		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.82 FOR MEN, 1.55 FOR WOMEN.

TABLE 11-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
074-109	864	0	0	4.3	582	3	52	16.4	166	0	0	30.7	19	11.1	13.0
110-119	2376	3	13	6.4	1272	4	31	20.5	334	3	90	36.8	25	14.7	16.6
120-129	3072	1	3	9.5	1900	4	21	25.5	508	1	20	44.1	11	19.3	21.2
130-139	3060	2	7	14.1	1976	5	25	31.8	680	2	29	52.8	16	25.5	27.2
140-149	2032	4	20	21.0	1562	3	19	39.6	622	3	48	63.3	24	33.6	34.7
150-159	1228	6	49	31.1	1106	5	45	49.3	482	4	83	75.7	53	44.3	44.3
160-169	664	6	90	46.1	750	5	67	61.3	334	3	90	90.5	80	58.3	56.6
170-179	366	0	0	68.3	520	1	19	76.2	194	4	206	108.2	46	76.7	72.2
180-189	222	2	90	100.8	308	2	65	94.7	148	2	135	129.3	88	100.8	91.9
190-300	216	4	185	148.4	438	11	251	117.5	232	4	172	154.3	214	132.2	117.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
074-109	1576	0	0	2.6	514	3	58	9.2	104	0	0	17.3	14	6.7	8.4
110-119	3062	0	0	3.3	1266	0	0	11.6	276	0	0	21.8	0	8.7	10.5
120-129	3486	1	3	4.2	1840	2	11	14.6	410	1	24	27.4	7	11.3	13.1
130-139	3480	4	11	5.3	2320	5	22	18.4	724	3	41	34.4	18	14.7	16.4
140-149	2148	1	5	6.6	1996	4	20	23.1	836	7	84	43.3	24	19.0	20.5
150-159	1530	2	13	8.3	1808	2	11	29.0	792	2	25	54.4	15	24.7	25.7
160-169	898	0	0	10.5	1340	3	22	36.4	640	4	63	68.2	24	32.1	32.1
170-179	556	0	0	13.2	952	6	63	45.7	526	1	19	85.6	34	41.6	40.2
180-189	412	1	24	16.6	698	4	57	57.4	376	6	160	107.2	74	54.0	50.3
190-300	450	2	44	20.8	954	12	126	72.0	548	10	182	134.3	123	69.9	62.8
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.03965	0.02295	0.00643	0.00776	6.16	2.96	-11.21819	-9.95249
55-64	0.02208	0.02297	0.00501	0.00425	4.41	5.40	-8.03238	-8.70436
65-74	0.01820	0.02301	0.00637	0.00560	2.86	4.11	-6.99677	-8.07780
AVERAGE	0.02579	0.02298	0.00336	0.00310	7.68	7.40		
STANDARDIZED	0.60569	0.59638	0.07665	0.08065	7.90	7.39		
45-74, UNIVARIATE	0.02779	0.02622	0.00326	0.00277	8.53	9.45	-9.02531	-9.36839
45-74, BIVARIATE	0.02469	0.02254	0.00337	0.00313	7.33	7.20		
45-74, MULTIVARIATE	0.01602	0.01635	0.00388	0.00344	4.13	4.75		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 6.61 FOR MEN, 0.00 FOR WOMEN.

TABLE 11-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
020-069	854	2	23	7.1	822	4	49	24.3	432	3	69	43.5	43	18.2	17.9
070-074	1780	2	11	9.1	1434	3	21	27.8	636	2	31	49.9	18	21.3	21.1
075-079	1430	1	7	11.6	1084	2	18	31.8	378	3	79	57.2	21	25.1	24.9
080-084	3438	3	9	14.7	2332	9	39	36.3	810	4	49	65.5	24	29.5	29.3
085-089	1882	1	5	18.8	1132	2	18	41.5	390	1	26	75.1	12	34.6	34.6
090-094	1982	3	15	23.9	1464	8	55	47.5	474	3	63	86.0	36	40.7	40.7
095-099	932	4	43	30.4	668	4	60	54.3	174	1	57	98.4	51	47.7	48.0
100-104	1000	5	50	38.6	748	3	40	62.0	210	6	286	112.7	72	56.0	56.5
105-109	304	3	99	49.1	194	1	52	70.9	44	0	0	128.9	74	65.8	66.5
110-160	498	4	80	62.4	536	7	131	80.9	152	3	197	147.4	118	77.1	78.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
020-069	1586	0	0	3.4	888	4	45	9.9	436	3	69	52.5	24	11.2	11.9
070-074	2820	0	0	4.0	1736	2	12	12.6	656	7	107	55.6	17	13.5	14.1
075-079	1986	1	5	4.7	1248	1	8	16.0	448	1	22	58.8	8	16.1	16.7
080-084	4154	4	10	5.5	2964	4	13	20.3	1216	3	25	62.3	13	19.4	19.8
085-089	2100	1	5	6.5	1656	3	18	25.8	530	0	0	65.9	9	23.2	23.4
090-094	2246	3	13	7.7	2176	5	23	32.8	840	10	119	69.8	34	27.8	27.8
095-099	852	0	0	9.1	882	3	34	41.6	348	2	57	73.9	24	33.3	32.8
100-104	860	1	12	10.7	1052	5	48	52.8	390	4	103	78.2	43	39.9	38.9
105-109	284	0	0	12.6	306	1	33	66.9	86	2	233	82.8	44	47.9	46.0
110-160	710	1	14	14.9	780	13	167	84.7	282	2	71	87.6	90	57.3	54.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.04844	0.03307	0.01334	0.01932	3.63	1.71	-9.82005	-9.53286
55-64	0.02700	0.04801	0.01057	0.00950	2.56	5.05	-7.14506	-9.46155
65-74	0.02760	0.01156	0.01317	0.01270	2.10	0.91	-6.59904	-5.32649
AVERAGE	0.03310	0.03468	0.00701	0.00708	4.72	4.90		
STANDARDIZED	0.42324	0.45080	0.08865	0.09208	4.77	4.90		
45-74, UNIVARIATE	0.03240	0.03642	0.00720	0.00687	4.50	5.30	-7.80065	-8.55516
45-74, BIVARIATE	0.03312	0.03393	0.00696	0.00715	4.76	4.75		
45-74, MULTIVARIATE	0.01794	0.02205	0.00738	0.00735	2.43	3.00		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.83 FOR MEN, 5.29 FOR WOMEN.

TABLE 11-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
096-189	1586	2	13	17.0	1280	9	70	32.8	470	2	43	50.1	39	28.0	27.3
190-204	1362	1	7	17.5	1068	0	0	35.1	446	2	45	54.9	10	29.6	29.1
205-219	2010	3	15	17.9	1304	4	31	37.6	492	7	142	60.2	37	31.3	31.0
220-234	2084	4	19	18.4	1626	4	25	40.3	580	2	34	66.0	23	33.2	33.0
235-249	1750	5	29	18.9	1408	7	50	43.1	436	0	0	72.4	33	35.1	35.1
250-264	1576	4	25	19.4	1254	4	32	46.2	414	4	97	79.3	37	37.2	37.4
265-279	1130	3	27	19.9	868	4	46	49.5	314	0	0	86.9	30	39.3	39.8
280-294	766	2	26	20.4	572	5	87	53.0	274	6	219	95.3	81	41.6	42.4
295-309	458	1	22	20.9	354	2	56	56.8	120	2	167	104.4	54	44.1	45.2
310-1124	646	0	0	21.5	410	4	98	60.8	134	1	75	114.3	42	46.6	48.1
UNKNOWN	732	3			270	0			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
096-189	1720	3	17	4.7	570	6	105	46.8	188	1	53	44.1	40	19.2	23.4
190-204	1674	0	0	5.1	730	2	27	42.7	236	2	85	47.2	15	20.2	23.6
205-219	2050	0	0	5.5	1066	3	28	39.0	386	2	52	50.7	14	21.1	23.8
220-234	2424	1	4	5.9	1600	7	44	35.6	558	4	72	54.3	26	22.2	24.0
235-249	2174	2	9	6.4	1594	3	19	32.5	664	3	45	58.3	18	23.2	24.1
250-264	1836	1	5	6.9	1786	3	17	29.7	696	4	57	62.5	19	24.4	24.3
265-279	1534	0	0	7.4	1686	4	24	27.1	726	4	55	67.0	20	25.5	24.5
280-294	1148	1	9	8.0	1384	3	22	24.7	520	2	38	71.8	20	26.8	24.7
295-309	740	0	0	8.6	1008	3	30	22.5	400	2	50	77.0	23	28.1	24.8
310-1124	1328	3	23	9.3	1818	6	33	20.6	802	10	125	82.5	48	29.4	25.0
UNKNOWN	970	0			446	1			56	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00172	0.00507	0.00449	0.00320	0.38	1.58	-5.99394	-7.89233
55-64	0.00463	-0.00613	0.00348	0.00367	1.33	-1.67	-5.86628	-3.54251
65-74	0.00621	0.00470	0.00474	0.00353	1.31	1.33	-5.72578	-5.58104
AVERAGE	0.00421	0.00165	0.00238	0.00199	1.77	0.83		
STANDARDIZED	0.17590	0.07568	0.09865	0.09211	1.78	0.82		
45-74, UNIVARIATE	0.00381	0.00317	0.00229	0.00198	1.67	1.60	-5.87633	-6.13583
45-74, BIVARIATE	0.00423	0.00049	0.00234	0.00234	1.81	0.21		
45-74, MULTIVARIATE	0.00402	0.00067	0.00234	0.00230	1.72	0.29		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.50 FOR MEN, 6.39 FOR WOMEN.

TABLE 11-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
062-179	1850	4	22	16.2	1262	0	0	31.7	156	1	64	26.6	15	24.1	24.8
180-199	872	1	11	16.6	634	3	47	34.0	86	0	0	32.2	25	26.1	26.7
200-219	1102	1	9	17.0	856	5	58	36.3	262	0	0	38.8	27	28.2	28.7
220-239	1388	1	7	17.5	1076	7	65	38.9	380	5	132	46.9	46	30.6	30.9
240-259	1908	2	10	18.0	1554	6	39	41.6	750	5	67	56.6	31	33.1	33.2
260-279	1898	5	26	18.5	1610	9	56	44.5	708	3	42	68.2	40	35.8	35.8
280-299	1642	5	30	18.9	1274	5	39	47.6	534	1	19	82.2	32	38.8	38.5
300-319	1142	2	18	19.5	912	3	33	50.9	442	3	68	99.1	32	41.9	41.4
320-339	806	2	25	20.0	472	1	21	54.5	252	5	198	119.3	52	45.4	44.5
340-968	700	1	14	20.5	470	4	85	58.2	108	3	278	143.5	63	49.1	47.8
UNKNOWN	792	4			294	0			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
062-179	2150	1	5	3.7	1110	5	45	40.6	104	1	96	44.4	21	17.6	24.7
180-199	896	2	22	4.2	630	3	48	38.2	74	0	0	47.3	31	18.8	24.6
200-219	1618	0	0	4.7	1004	0	0	35.8	228	2	88	50.5	7	20.1	24.5
220-239	1700	0	0	5.4	1068	5	47	33.6	280	2	71	53.8	23	21.4	24.5
240-259	2198	1	5	6.1	1422	5	35	31.6	508	1	20	57.4	17	22.8	24.4
260-279	2318	2	9	6.9	1856	5	27	29.7	828	6	72	61.2	26	24.4	24.3
280-299	1932	1	5	7.8	1840	6	33	27.9	900	5	56	65.3	26	26.0	24.3
300-319	1648	1	6	8.8	1766	4	23	26.2	976	6	61	69.7	25	27.7	24.2
320-339	1022	0	0	9.9	1174	5	43	24.6	626	3	48	74.3	28	29.6	24.2
340-968	1046	3	29	11.2	1326	2	15	23.1	638	8	125	79.2	43	31.6	24.1
UNKNOWN	1070	0			492	1			70	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	MEN	WOMEN
45-54	0.00133	0.00619	0.00324	0.00357	0.41	1.73	-5.95788	-8.26059
55-64	0.00340	-0.00317	0.00254	0.00258	1.34	-1.23	-5.63229	-4.26560
65-74	0.00949	0.00326	0.00427	0.00368	2.22	0.89	-6.84237	-5.27060
AVERAGE	0.00385	0.00083	0.00181	0.00182	2.13	0.46		
STANDARDIZED	0.23413	0.05275	0.10162	0.10232	2.30	0.52		
45-74, UNIVARIATE	0.00399	0.00326	0.00170	0.00179	2.35	1.81	-6.00956	-6.19804
45-74, BIVARIATE	0.00368	-0.00013	0.00183	0.00200	2.01	-0.06		
45-74, MULTIVARIATE	0.00311	-0.00018	0.00222	0.00241	1.40	-0.08		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.38 FOR MEN, 5.08 FOR WOMEN.

TABLE 11-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
029-059	390	0	0	15.8	298	0	0	29.7	80	2	250	55.0	26	25.8	26.6
060-069	2534	5	20	17.2	1638	5	31	32.8	606	5	83	59.0	31	28.3	29.0
070-079	4538	8	18	18.7	3154	11	35	36.2	1084	6	55	63.3	28	31.0	31.6
080-089	3290	5	15	20.4	2554	11	43	39.9	810	6	74	67.8	33	34.0	34.3
090-099	1508	7	46	22.2	1244	7	56	44.0	552	3	54	72.7	51	37.3	37.4
100-109	620	1	16	24.1	532	3	56	48.5	194	1	52	78.0	37	40.9	40.7
110-119	284	0	0	26.3	274	1	36	53.5	94	0	0	83.6	15	44.9	44.2
120-129	138	0	0	28.6	154	0	0	59.0	68	0	0	89.6	0	49.2	48.1
130-139	78	1	128	31.2	74	2	270	65.0	54	0	0	96.0	146	53.9	52.4
140-524	258	1	39	33.9	294	3	102	71.7	132	3	227	102.9	102	59.1	57.0
UNKNOWN	462	0			198	0			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
029-059	354	0	0	2.8	278	1	36	31.2	88	0	0	37.2	14	16.0	17.0
060-069	2986	1	3	3.5	1770	7	40	30.7	626	1	16	42.9	17	18.0	18.9
070-079	5904	4	7	4.4	4250	15	35	30.3	1602	8	50	49.4	23	20.2	21.0
080-089	4456	0	0	5.5	3728	6	16	29.9	1364	11	81	56.9	18	22.8	23.3
090-099	1832	2	11	6.8	1696	5	29	29.4	704	3	43	65.5	24	25.7	25.8
100-109	706	0	0	8.5	736	3	41	29.0	366	2	55	75.5	28	28.9	28.6
110-119	334	0	0	10.6	298	1	34	28.6	132	2	152	86.9	39	32.6	31.7
120-129	118	0	0	13.2	240	1	42	28.2	124	0	0	99.9	21	36.7	35.2
130-139	48	1	208	16.4	66	0	0	27.8	44	0	0	114.9	63	41.3	39.0
140-524	188	3	160	20.4	322	1	31	27.4	136	7	515	132.1	170	46.5	43.3
UNKNOWN	672	0			304	1			46	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00857	0.02193	0.00365	0.00384	2.35	5.71	-6.22798	-8.67571
55-64	0.00987	-0.00145	0.00263	0.00675	3.76	-0.22	-5.66189	-4.99121
65-74	0.00706	0.01430	0.00376	0.00277	1.88	5.16	-4.88670	-5.67949
AVERAGE	0.00885	0.01508	0.00185	0.00213	4.77	7.07		
STANDARDIZED	0.23455	0.35501	0.04910	0.04847	4.78	7.32		
45-74, UNIVARIATE	0.00928	0.01195	0.00182	0.00182	5.10	6.57	-5.77166	-6.40121
45-74, BIVARIATE	0.00852	0.01042	0.00187	0.00191	4.56	5.44		
45-74, MULTIVARIATE	0.00743	0.00713	0.00201	0.00218	3.69	3.28		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.38 FOR MEN, 9.26 FOR WOMEN.

TABLE 11-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
065-099	1204	0	0	13.0	952	6	63	35.9	398	2	50	48.4	31	26.7	25.5
100-104	866	1	12	14.1	584	1	17	37.0	224	2	89	52.4	24	28.1	27.1
105-109	1312	3	23	15.4	870	2	23	38.1	342	3	88	56.8	32	29.6	28.8
110-114	1544	4	26	16.7	1234	8	65	39.3	412	4	97	61.5	50	31.2	30.6
115-119	1798	4	22	18.1	1438	4	28	40.5	512	2	39	66.5	27	32.9	32.6
120-124	1950	6	31	19.7	1502	5	33	41.7	500	3	60	72.0	35	34.7	34.6
125-129	1584	1	6	21.3	1202	4	33	43.0	416	3	72	78.0	25	36.6	36.8
130-134	1346	3	22	23.2	1022	1	10	44.3	392	1	26	84.4	18	38.5	39.2
135-139	794	0	0	25.2	604	3	50	45.7	196	1	51	91.3	25	40.6	41.6
140-272	1700	6	35	27.3	1004	9	90	47.1	308	5	162	98.8	66	42.8	44.3
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
065-099	2072	1	5	4.4	1078	4	37	13.1	504	5	99	50.0	27	13.0	13.6
100-104	1534	2	13	4.7	854	0	0	14.7	332	2	60	52.2	15	14.2	14.8
105-109	1988	1	5	5.0	1280	2	16	16.5	368	0	0	54.4	8	15.6	16.2
110-114	2074	0	0	5.3	1364	2	15	18.6	510	1	20	56.8	8	17.2	17.7
115-119	1976	1	5	5.7	1498	1	7	20.9	552	2	36	59.3	10	18.9	19.3
120-124	1722	1	6	6.1	1520	4	26	23.5	522	2	38	62.0	19	20.8	21.1
125-129	1424	0	0	6.5	1260	3	24	26.4	480	6	125	64.7	28	22.8	23.1
130-134	1074	0	0	6.9	1042	4	38	29.6	368	2	54	67.5	24	25.1	25.2
135-139	888	0	0	7.4	834	2	24	33.3	356	5	140	70.5	34	27.6	27.5
140-272	2846	5	18	7.8	2958	19	64	37.4	1240	9	73	73.6	47	30.3	30.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01652	0.01286	0.01098	0.01103	1.50	1.17	-7.55787	-8.28830
55-64	0.00610	0.02351	0.00993	0.00477	0.61	4.93	-5.52457	-8.23760
65-74	0.01606	0.00871	0.01226	0.00704	1.31	1.24	-6.19310	-5.44560
AVERAGE	0.01218	0.01818	0.00631	0.00372	1.93	4.89		
STANDARDIZED	0.18908	0.40727	0.09900	0.08319	1.91	4.90		
45-74, UNIVARIATE	0.01060	0.01895	0.00626	0.00357	1.69	5.30	-6.26268	-7.80128
45-74, BIVARIATE	0.01236	0.01771	0.00633	0.00381	1.95	4.64		
45-74, MULTIVARIATE	0.00570	0.01107	0.00670	0.00407	0.85	2.72		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.63 FOR MEN, 3.29 FOR WOMEN.

TABLE 11-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
12-31	156	2	128	69.4	280	0	0	94.9	218	3	138	140.8	76	106.7	86.6
32-35	156	2	128	55.1	326	5	153	79.0	248	3	121	115.1	137	83.8	71.6
36-39	470	1	21	43.8	612	6	98	65.7	398	4	101	94.0	74	65.8	59.1
40-43	814	2	25	34.8	1162	7	60	54.6	586	5	85	76.7	55	51.6	48.8
44-47	1706	4	23	27.6	1724	9	52	45.4	708	5	71	62.6	43	40.5	40.3
48-51	1794	5	28	21.9	1676	5	30	37.7	594	3	51	51.0	32	31.7	33.2
52-55	2654	3	11	17.4	1844	5	27	31.3	458	3	66	41.6	22	24.8	27.4
56-59	2488	6	24	13.8	1372	4	29	26.0	292	0	0	33.9	24	19.5	22.6
60-63	1866	2	11	10.9	824	0	0	21.6	120	0	0	27.6	7	15.2	18.6
64-85	1988	1	5	8.7	564	2	35	17.9	64	0	0	22.5	11	11.9	15.4
UNKNOWN	8	0			30	0			14	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
04-19	78	0	0	70.3	256	3	117	146.7	252	1	40	130.9	68	141.9	105.0
20-23	192	1	52	42.7	380	5	132	96.5	342	6	175	105.2	131	91.2	74.0
24-27	394	0	0	25.9	854	7	82	63.3	646	6	93	84.4	69	58.4	52.0
28-31	980	4	41	15.7	1814	8	44	41.4	1034	9	87	67.7	55	37.3	36.5
32-35	2200	1	5	9.5	2940	11	37	27.0	1262	9	71	54.2	33	23.8	25.6
36-39	3032	5	16	5.8	2896	6	21	17.6	886	1	11	43.4	18	15.1	18.0
40-43	4128	0	0	3.5	2460	1	4	11.5	510	1	20	34.8	3	9.6	12.6
44-47	3274	0	0	2.1	1324	0	0	7.5	220	1	45	27.8	2	6.1	8.8
48-51	2064	0	0	1.3	508	0	0	4.9	62	0	0	22.3	0	3.9	6.2
52-77	1238	0	0	0.8	242	0	0	3.2	18	0	0	17.8	0	2.5	4.3
UNKNOWN	18	0			14	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.05813	-0.12572	0.01958	0.03519	-2.97	-3.57	-2.51963	-1.98745
55-64	-0.04677	-0.10725	0.01636	0.01828	-2.86	-5.87	-2.54229	-1.56853
65-74	-0.05164	-0.05606	0.02190	0.02268	-2.36	-2.47	-1.99240	-2.60718
AVERAGE	-0.05149	-0.09252	0.01089	0.01320	-4.73	-7.01		
STANDARDIZED	-0.45980	-0.68006	0.09730	0.09716	-4.73	-7.00		
45-74, UNIVARIATE	-0.06140	-0.11314	0.01023	0.01207	-6.00	-9.37	-1.98392	-1.49704
45-74, BIVARIATE	-0.04850	-0.08910	0.01107	0.01362	-4.38	-6.54		
45-74, MULTIVARIATE	-0.04201	-0.07479	0.01164	0.01473	-3.61	-5.08		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.20 FOR MEN, 4.12 FOR WOMEN.

TABLE 11-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
37-63	2182	3	14	16.4	2004	3	15	22.9	620	2	32	49.5	17	22.5	22.6
64-67	1366	4	29	17.3	1092	2	18	26.6	408	0	0	54.3	21	25.1	25.2
68-71	1896	5	26	18.2	1410	4	28	30.8	562	4	71	59.5	34	28.0	28.1
72-75	2670	2	7	19.2	1930	7	36	35.7	696	7	101	65.3	30	31.2	31.3
76-79	802	3	37	20.2	510	1	20	41.3	154	1	65	71.6	34	34.8	34.8
80-83	1714	1	6	21.2	1204	7	58	47.8	418	5	120	78.5	39	38.8	38.8
84-87	1000	1	10	22.4	702	6	85	55.4	240	1	42	86.1	41	43.2	43.1
88-91	1004	3	30	23.6	596	3	50	64.1	216	1	46	94.4	39	48.2	48.0
92-95	520	3	58	24.8	360	4	111	74.2	142	2	141	103.4	88	53.7	53.4
96-170	946	3	32	26.1	606	6	99	85.9	244	3	123	113.4	67	59.9	59.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
37-63	1784	0	0	3.0	1660	4	24	19.4	556	1	18	62.8	13	16.5	17.4
64-67	1580	0	0	3.5	1064	0	0	21.4	368	0	0	63.3	0	17.9	18.7
68-71	2308	0	0	4.1	1726	3	17	23.6	644	6	93	63.8	19	19.4	20.0
72-75	3494	2	6	4.7	2636	3	11	25.9	840	6	71	64.3	16	21.0	21.4
76-79	986	0	0	5.5	828	5	60	28.6	246	5	203	64.8	49	22.8	23.0
80-83	2312	3	13	6.5	1798	8	44	31.5	842	4	48	65.4	30	24.7	24.6
84-87	1576	2	13	7.6	1084	4	37	34.6	474	5	105	65.9	35	26.7	26.4
88-91	1254	2	16	8.8	1020	6	59	38.1	418	4	96	66.4	45	29.0	28.3
92-95	786	1	13	10.3	652	3	46	42.0	270	3	111	67.0	41	31.4	30.3
96-170	1518	1	7	12.0	1220	5	41	46.2	574	0	0	67.5	18	34.0	32.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.01298	0.03881	0.01452	0.02069	0.89	1.88	-6.52152	-9.83174
55-64	0.03704	0.02424	0.00949	0.01025	3.90	2.37	-7.67687	-7.05004
65-74	0.02340	0.00206	0.01291	0.01318	1.81	0.16	-6.05659	-4.49285
AVERAGE	0.02807	0.01892	0.00676	0.00753	4.15	2.51		
STANDARDIZED	0.35974	0.24449	0.08690	0.09637	4.14	2.54		
45-74, UNIVARIATE	0.02743	0.02026	0.00701	0.00770	3.91	2.63	-7.10071	-6.96782
45-74, BIVARIATE	0.02710	0.01735	0.00680	0.00770	3.98	2.25		
45-74, MULTIVARIATE	0.01819	0.01087	0.00714	0.00823	2.55	1.32		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.11 FOR MEN, 2.83 FOR WOMEN.

TABLE 11-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NONE	5344	13	24	24.4	5026	14	28	32.2	2198	14	64	67.8	33	35.4	31.4
UNDER 20	1998	3	15	20.7	1648	9	55	40.0	694	7	101	71.4	44	34.6	34.0
20	3222	8	25	17.6	2066	12	58	49.6	452	2	44	75.3	38	33.9	36.8
OVER 20	3458	4	12	15.0	1622	8	49	61.5	346	3	87	79.4	28	33.2	39.8
UNKNOWN	78	0			52	0			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NONE	9898	7	7	7.1	9684	26	27	25.9	4182	23	55	58.4	24	23.4	20.1
UNDER 20	4120	2	5	5.8	2328	7	30	34.1	688	8	116	79.9	24	23.9	25.9
20	2476	2	8	4.8	1116	4	36	44.8	248	2	81	109.0	21	24.4	33.2
OVER 20	1038	0	0	3.9	512	4	78	59.0	92	1	109	148.5	30	24.9	42.7
UNKNOWN	66	0			48	0			22	0					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.16314	-0.19521	0.16031	0.36399	-1.02	-0.54	-5.31937	-6.55890
55-64	0.21742	0.27710	0.12783	0.16437	1.70	1.69	-5.03823	-5.25922
65-74	0.05342	0.31697	0.19077	0.21570	0.28	1.47	-4.28753	-4.43761
AVERAGE	0.06603	0.23610	0.08853	0.12304	0.75	1.92		
STANDARDIZED	0.07855	0.18266	0.09993	0.09114	0.79	2.00		
45-74, UNIVARIATE	-0.02157	0.02107	0.08644	0.12487	-0.25	0.17	-4.94346	-5.36119
45-74, BIVARIATE	0.07970	0.25286	0.08902	0.12526	0.90	2.02		
45-74, MULTIVARIATE	0.14802	0.31398	0.09200	0.12780	1.61	2.46		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.45 FOR MEN, 1.61 FOR WOMEN.

TABLE 11-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	7388	5	7	5.9	4740	11	23	19.3	1442	3	21	19.6	14	12.1	13.0
BORDER	4298	7	16	19.4	3348	10	30	41.0	1414	8	57	59.1	28	33.2	33.8
DEFINITE	2414	16	66	63.5	2326	22	95	86.6	844	15	178	175.6	95	90.4	87.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	9932	4	4	4.2	4964	6	12	9.9	1204	3	25	25.6	8	7.9	10.7
BORDER	5040	4	8	7.2	4892	10	20	24.9	2094	11	53	51.7	21	21.2	23.0
DEFINITE	2626	3	11	12.2	3832	25	65	62.4	1934	20	103	103.9	57	56.9	49.0
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.19664	0.52975	0.25594	0.37051	4.68	1.43	-6.74612	-7.07593
55-64	0.75771	0.92623	0.19532	0.22420	3.88	4.13	-5.55390	-6.22361
65-74	1.11305	0.70769	0.28978	0.26260	3.84	2.69	-5.53924	-5.26862
AVERAGE	0.96248	0.78090	0.13686	0.15489	7.03	5.04		
STANDARDIZED	0.74917	0.59983	0.10612	0.11976	7.06	5.01		
45-74, UNIVARIATE	1.01217	0.99168	0.13545	0.14751	7.47	6.72	-6.01959	-6.44837
45-74, BIVARIATE	0.96295	0.76437	0.13675	0.15395	7.04	4.97		
45-74, MULTIVARIATE	0.73826	0.63511	0.14411	0.16229	5.12	3.91		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.21 FOR MEN, 0.96 FOR WOMEN.

TABLE 11-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	11866	12	10	10.3	7898	17	22	22.5	2382	6	25	25.1	16	16.3	17.9
POSSIBLE	1082	4	37	33.4	1154	8	69	56.0	552	4	72	73.1	57	48.9	49.2
DEFINITE	1138	12	105	107.2	1360	18	132	138.0	766	16	209	208.7	141	144.6	133.8
UNKNOWN	14	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	14246	5	4	3.3	8664	7	8	8.4	2454	7	29	29.0	7	7.8	10.2
POSSIBLE	1610	1	6	9.5	2228	7	31	28.8	988	6	61	58.6	29	25.9	27.6
DEFINITE	1730	5	29	27.4	2788	27	97	97.9	1790	21	117	117.9	84	85.2	74.4
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.18201	1.05659	0.20369	0.32557	5.80	3.25	-6.18518	-7.31611
55-64	0.91868	1.23609	0.16682	0.20145	5.51	6.14	-5.39926	-6.38590
65-74	1.07733	0.71114	0.23704	0.21234	4.54	3.35	-5.28850	-5.14573
AVERAGE	1.03650	0.99902	0.11335	0.13333	9.14	7.49		
STANDARDIZED	0.70178	0.79802	0.07675	0.10594	9.14	7.53		
45-74, UNIVARIATE	1.10311	1.20406	0.11119	0.12946	9.92	9.30	-5.72044	-6.46288
45-74, BIVARIATE	1.01946	1.00232	0.11416	0.13560	8.93	7.39		
45-74, MULTIVARIATE	0.85513	0.79134	0.12513	0.14496	6.83	5.46		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.04 FOR MEN, 3.25 FOR WOMEN.

TABLE 11-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	13634	19	14	13.9	9728	33	34	33.7	3416	19	56	54.7	27	26.4	27.6
POSSIBLE	272	2	74	72.7	382	3	79	87.8	116	1	86	138.0	78	89.3	84.0
DEFINITE	194	7	361	361.4	304	7	230	224.5	168	6	357	339.3	300	293.7	249.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	17306	9	5	5.3	12978	28	22	22.1	4818	25	52	51.0	18	17.9	19.6
POSSIBLE	196	1	51	26.5	426	5	117	83.8	216	2	93	131.8	95	73.7	64.0
DEFINITE	96	1	104	129.2	284	8	282	306.9	198	7	354	332.1	277	292.6	204.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.66357	1.60573	0.22471	0.46806	7.40	3.43	-5.87937	-6.84100
55-64	0.96706	1.34428	0.20817	0.19452	4.65	6.91	-4.99170	-5.41601
65-74	0.94170	0.96600	0.24284	0.22079	3.88	4.38	-4.50357	-4.57493
AVERAGE	1.19039	1.21679	0.12927	0.13934	9.21	8.73		
STANDARDIZED	0.41791	0.39201	0.04386	0.04482	9.53	8.75		
45-74, UNIVARIATE	1.23320	1.42475	0.12858	0.13763	9.59	10.35	-5.24041	-5.62752
45-74, BIVARIATE	1.12592	1.19313	0.13089	0.14179	8.60	8.41		
45-74, MULTIVARIATE	0.81239	0.81030	0.15591	0.16424	5.21	4.93		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 6.63 FOR MEN, 2.41 FOR WOMEN.

TABLE 11-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	13900	24	17	17.3	10144	38	37	37.5	3498	24	69	68.6	31	31.2	32.1
YES	200	4	200	200.0	270	5	185	185.2	202	2	99	99.0	164	163.7	128.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	17486	11	6	6.3	13428	40	30	29.8	5146	32	62	62.2	23	23.0	23.2
YES	112	0	0	0.0	260	1	38	38.5	86	2	233	232.6	66	65.5	51.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	2.48693	********	0.54975	*******	4.52	*****	-5.66498	********
55-64	1.62829	0.25728	0.48395	1.01632	3.36	0.25	-4.88638	-5.11709
65-74	0.37296	1.35415	0.74320	0.74568	0.50	1.82	-4.27493	-4.37458
AVERAGE	1.68882	*******	0.32636	*******	5.17	****		
STANDARDIZED	0.26390	*******	0.04764	*******	5.54	****		
45-74, UNIVARIATE	1.68378	1.05442	0.32510	0.59149	5.18	1.78	-5.06971	-5.37634
45-74, BIVARIATE	1.40726	0.79377	0.33076	0.59416	4.25	1.34		
45-74, MULTIVARIATE	1.27251	0.49995	0.35087	0.72882	3.63	0.69		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 5.26 FOR MEN.

TABLE 11-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	13416	23	17	17.1	9684	36	37	37.2	3298	21	64	63.7	30	30.3	31.2
YES	684	5	73	73.1	730	7	96	95.9	402	5	124	124.4	94	93.6	80.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	16962	9	5	5.3	12794	37	29	28.9	4674	29	62	62.0	22	21.8	22.7
YES	636	2	31	31.4	894	4	45	44.7	558	5	90	89.6	53	52.7	37.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.46148	1.78470	0.49658	0.78383	2.94	2.28	-5.67213	-6.84730
55-64	0.95948	0.43959	0.41670	0.52862	2.30	0.83	-4.89410	-5.14687
65-74	0.68191	0.37315	0.50332	0.48843	1.35	0.76	-4.35058	-4.37684
AVERAGE	1.02779	0.64292	0.26956	0.32620	3.81	1.97		
STANDARDIZED	0.26680	0.18080	0.06790	0.08184	3.93	2.21		
45-74, UNIVARIATE	1.14066	0.88935	0.26930	0.32445	4.24	2.74	-5.09979	-5.43168
45-74, BIVARIATE	0.95354	0.49410	0.27254	0.32889	3.50	1.50		
45-74, MULTIVARIATE	0.69867	0.24137	0.27635	0.33438	2.53	0.72		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.26 FOR MEN, 2.57 FOR WOMEN.

TABLE 11-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	13842	28	20	20.2	10020	35	35	34.9	3528	21	60	59.5	31	30.7	31.4
YES	216	0	0	0.0	360	8	222	222.2	164	4	244	243.9	162	162.2	136.0
UNKNOWN	42	0			34	0			8	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	17002	11	6	6.5	13266	38	29	28.6	5078	31	61	61.0	23	22.6	22.5
YES	554	0	0	0.0	382	3	79	78.5	138	3	217	217.4	56	55.9	61.5
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	********	********	*******	*******	*****	*****	********	********
55-64	1.88878	1.01865	0.39948	0.60425	4.73	1.69	-4.95683	-5.15648
65-74	1.44843	1.30221	0.55769	0.61737	2.60	2.11	-4.41884	-4.39325
AVERAGE	*******	*******	*******	*******	****	****		
STANDARDIZED	*******	*******	*******	*******	****	****		
45-74, UNIVARIATE	1.69219	0.91023	0.31322	0.42557	5.40	2.14	-5.08782	-5.39323
45-74, BIVARIATE	1.49188	1.01536	0.31624	0.42804	4.72	2.37		
45-74, MULTIVARIATE	1.03106	0.15263	0.33227	0.46123	3.10	0.33		

TABLE 11-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	13724	27	20	19.7	10034	39	39	38.9	3542	24	68	67.8	33	33.0	33.2
YES	338	1	30	29.6	346	4	116	115.6	150	1	67	66.7	72	71.9	64.6
UNKNOWN	38	0			34	0			8	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	17370	8	5	4.6	13406	41	31	30.6	5118	31	61	60.6	22	22.3	22.5
YES	188	3	160	159.6	246	0	0	0.0	98	3	306	306.1	113	112.8	96.3
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.41001	3.57674	1.02134	0.68516	0.40	5.22	-5.53397	-6.98899
55-64	1.10562	********	0.53081	*******	2.08	*****	-4.84922	********
65-74	-0.01646	1.67117	1.02750	0.62268	-0.02	2.68	-4.28760	-4.40120
AVERAGE	0.78854	*******	0.42816	*******	1.84	****		
STANDARDIZED	0.13890	*******	0.07553	*******	1.84	****		
45-74, UNIVARIATE	0.78824	1.63976	0.42460	0.42787	1.86	3.83	-5.01507	-5.40868
45-74, BIVARIATE	0.67272	1.46875	0.42591	0.43164	1.58	3.40		
45-74, MULTIVARIATE	0.47743	0.95697	0.43606	0.45466	1.09	2.10		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.11 FOR MEN.

TABLE 11-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	13696	26	19	19.0	9864	40	41	40.6	3428	20	58	58.3	32	31.9	32.5
YES	404	2	50	49.5	550	3	55	54.5	272	6	221	220.6	90	89.7	74.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	17268	8	5	4.6	13156	36	27	27.4	4904	25	51	51.0	20	19.5	20.8
YES	330	3	91	90.9	532	5	94	94.0	328	9	274	274.4	143	142.9	105.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	WOMEN	STANDARD ERROR MEN	WOMEN	T-VALUE MEN	WOMEN	INTERCEPT OF FUNCTION MEN	WOMEN
45-54	0.96464	2.99411	0.73730	0.68163	1.31	4.39	-5.56981	-6.98310
55-64	0.29929	1.24740	0.60184	0.48142	0.50	2.59	-4.80648	-5.20248
65-74	1.36334	1.72933	0.47429	0.39746	2.87	4.35	-4.43912	-4.57553
AVERAGE	0.95751	1.77956	0.33249	0.27954	2.88	6.37		
STANDARDIZED	0.20132	0.35428	0.07323	0.05422	2.75	6.53		
45-74, UNIVARIATE	1.04690	2.01490	0.32291	0.27405	3.24	7.35	-5.04926	-5.54126
45-74, BIVARIATE	0.84448	1.64364	0.32562	0.27906	2.59	5.89		
45-74, MULTIVARIATE	0.63202	1.23868	0.33342	0.29459	1.90	4.20		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.93 FOR MEN, 4.41 FOR WOMEN.

TABLE 11-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CONGESTIVE HEART FAILURE
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CONGESTIVE HEART FAILURE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	14100	28	20		10414	43	41		3700	26	70		34		
NO	13288	25	19	18.8	9558	38	40	39.8	3294	20	61	60.7	32	31.8	32.4
YES	812	3	37	36.9	856	5	58	58.4	406	6	148	147.8	68	67.5	59.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17598	11	6		13688	41	30		5232	34	65		24		
NO	17026	7	4	4.1	12818	36	28	28.1	4732	24	51	50.7	19	19.4	20.7
YES	572	4	70	69.9	870	5	57	57.5	500	10	200	200.0	98	97.8	74.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.67850	2.84700	0.61316	0.62970	1.11	4.52	-5.57882	-7.10262
55-64	0.38848	0.72196	0.47843	0.47985	0.81	1.50	-4.82642	-5.17631
65-74	0.90732	1.40265	0.47155	0.38244	1.92	3.67	-4.39876	-4.58071
AVERAGE	0.65785	1.45274	0.29455	0.27015	2.23	5.38		
STANDARDIZED	0.17642	0.37013	0.08087	0.06562	2.18	5.64		
45-74, UNIVARIATE	0.76143	1.63507	0.29074	0.26204	2.62	6.24	-5.05286	-5.54919
45-74, BIVARIATE	0.60871	1.28918	0.29262	0.26654	2.08	4.84		
45-74, MULTIVARIATE	0.43706	0.99006	0.29845	0.27784	1.46	3.56		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.60 FOR MEN, 7.24 FOR WOMEN.

TABLE 12-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
074-109	856	4	47	49.9	586	10	171	111.2	168	8	476	246.0	137	87.9	104.4
110-119	2348	15	64	58.9	1276	12	94	126.2	342	5	146	266.8	81	102.9	117.0
120-129	3026	22	73	69.7	1910	32	168	143.2	522	10	192	289.2	117	120.3	131.0
130-139	3028	23	76	82.3	1986	36	181	162.5	718	26	362	313.3	148	140.7	146.8
140-149	2002	14	70	97.2	1588	20	126	184.2	640	25	391	339.4	139	164.3	164.3
150-159	1230	14	114	114.7	1122	20	178	208.7	488	14	287	367.4	169	191.8	183.8
160-169	662	13	196	135.3	752	18	239	236.3	350	15	429	397.5	261	223.6	205.5
170-179	366	5	137	159.5	516	8	155	267.4	200	6	300	429.9	176	260.5	229.7
180-189	222	1	45	187.8	316	13	411	302.2	154	11	714	464.7	361	303.0	256.5
190-300	222	8	360	220.9	458	21	459	341.3	248	12	484	501.9	442	351.9	286.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
074-109	1570	9	57	36.1	518	8	154	62.4	104	1	96	85.1	82	46.1	58.1
110-119	3044	14	46	39.3	1272	7	55	66.2	284	3	106	98.8	52	52.7	63.2
120-129	3450	6	17	42.7	1846	11	60	70.2	414	5	121	114.6	39	60.3	68.7
130-139	3442	14	41	46.4	2324	14	60	74.5	730	13	178	132.9	63	69.0	74.6
140-149	2112	14	66	50.5	2014	11	55	79.0	858	14	163	154.0	78	78.9	81.1
150-159	1512	8	53	54.9	1808	13	72	83.8	806	12	149	178.4	80	90.2	88.1
160-169	882	3	34	59.7	1350	16	119	88.8	664	12	181	206.4	107	103.0	95.7
170-179	560	4	71	64.9	944	11	117	94.2	538	10	186	238.6	122	117.7	103.9
180-189	414	5	121	70.5	692	9	130	99.9	390	9	231	275.6	154	134.4	112.9
190-300	458	5	109	76.6	978	11	112	105.9	590	24	407	317.9	197	153.4	122.5
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01693	0.00846	0.00393	0.00407	4.31	2.08	-6.37575	-5.81207
55-64	0.01300	0.00598	0.00271	0.00332	4.79	1.80	-5.14866	-4.99995
65-74	0.00854	0.01518	0.00329	0.00344	2.60	4.41	-3.85781	-5.65012
AVERAGE	0.01246	0.00991	0.00185	0.00206	6.75	4.81		
STANDARDIZED	0.29416	0.25440	0.04287	0.05311	6.86	4.79		
45-74, UNIVARIATE	0.01603	0.01361	0.00181	0.00184	8.87	7.38	-5.70564	-6.10660
45-74, BIVARIATE	0.01170	0.00845	0.00186	0.00206	6.29	4.11		
45-74, MULTIVARIATE	0.00541	0.00275	0.00205	0.00222	2.64	1.24		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.76 FOR MEN, 3.87 FOR WOMEN.

TABLE 12-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
020-069	862	7	81	58.7	834	10	120	128.4	454	21	463	318.5	177	123.8	118.0
070-074	1758	15	85	64.8	1448	29	200	140.6	652	22	337	326.7	171	132.0	127.4
075-079	1414	10	71	71.6	1080	10	93	154.0	390	10	256	335.2	104	140.7	137.4
080-084	3384	17	50	79.0	2364	38	161	168.5	846	23	272	343.9	118	149.9	148.3
085-089	1872	20	107	87.2	1144	16	140	184.4	394	10	254	352.7	135	159.7	160.0
090-094	1950	16	82	96.2	1478	32	217	201.7	498	14	281	361.8	158	170.1	172.5
095-099	920	12	130	106.1	666	8	120	220.5	176	9	511	371.1	165	181.2	186.0
100-104	998	8	80	117.1	756	23	304	241.0	212	11	519	380.6	214	192.9	200.5
105-109	306	1	33	129.1	198	4	202	263.4	44	1	227	390.4	109	205.4	216.1
110-160	498	13	261	142.3	542	20	369	287.6	164	11	671	400.3	365	218.7	232.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
020-069	1608	10	62	34.2	904	10	111	73.0	454	10	220	140.9	101	61.6	65.5
070-074	2800	12	43	37.5	1752	11	63	75.0	672	9	134	152.7	61	66.4	69.5
075-079	1968	4	20	41.1	1252	15	120	77.0	460	10	217	165.4	79	71.5	73.7
080-084	4092	16	39	45.1	2984	16	54	79.1	1244	15	121	179.2	56	77.1	78.1
085-089	2066	3	15	49.4	1654	10	60	81.2	534	14	262	194.1	63	83.0	82.8
090-094	2214	13	59	54.2	2166	21	97	83.4	862	12	139	210.1	88	89.4	87.8
095-099	836	7	84	59.4	884	8	90	85.7	354	8	226	227.5	111	96.3	93.1
100-104	858	8	93	65.1	1048	6	57	88.0	404	8	198	246.1	95	103.7	98.7
105-109	288	3	104	71.3	306	2	65	90.4	88	4	455	266.3	132	111.6	104.7
110-160	714	6	84	78.1	796	12	151	92.8	306	13	425	288.0	171	120.2	111.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02005	0.01853	0.00731	0.00781	2.74	2.37	-5.78610	-6.22778
55-64	0.01866	0.00541	0.00533	0.00711	3.50	0.76	-4.89528	-4.57656
65-74	0.00547	0.01657	0.00667	0.00725	0.82	2.29	-3.05723	-4.65956
AVERAGE	0.01512	0.01316	0.00362	0.00426	4.18	3.09		
STANDARDIZED	0.19488	0.17198	0.04614	0.05541	4.22	3.10		
45-74, UNIVARIATE	0.01307	0.01511	0.00370	0.00419	3.53	3.61	-4.55535	-5.40374
45-74, BIVARIATE	0.01574	0.01195	0.00360	0.00427	4.37	2.80		
45-74, MULTIVARIATE	0.00845	0.00393	0.00362	0.00435	2.33	0.90		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.99 FOR MEN, 1.88 FOR WOMEN.

TABLE 12-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
096-189	1604	22	137	83.1	1306	28	214	204.0	512	26	508	425.9	222	177.7	174.7
190-204	1366	8	59	83.8	1094	21	192	196.6	472	21	445	396.8	171	171.1	169.1
205-219	2016	9	45	84.6	1320	25	189	189.4	504	13	258	369.6	122	164.7	163.6
220-234	2084	16	77	85.3	1632	30	184	182.6	584	18	308	344.0	149	158.5	158.4
235-249	1754	10	57	86.0	1428	31	217	175.9	444	16	360	320.1	157	152.6	153.2
250-264	1586	17	107	86.7	1272	10	79	169.5	422	11	261	297.8	116	146.9	148.3
265-279	1136	14	123	87.5	906	22	243	163.3	328	11	335	276.9	198	141.4	143.5
280-294	766	9	117	88.2	580	6	103	157.4	278	5	180	257.4	123	136.1	138.8
295-309	458	6	131	89.0	358	6	168	151.6	124	5	403	239.2	181	131.0	134.3
310-1124	650	4	62	89.7	426	7	164	146.1	142	4	282	222.3	123	126.0	129.9
UNKNOWN	542	4			188	4			20	2					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
096-189	1724	10	58	44.6	606	7	116	70.1	192	10	521	265.6	107	73.9	87.1
190-204	1680	6	36	45.1	748	4	53	72.3	258	9	349	248.7	71	75.5	85.9
205-219	2068	6	29	45.6	1088	13	119	74.6	400	7	175	232.9	73	77.1	84.7
220-234	2446	11	45	46.1	1634	10	61	76.9	580	15	259	218.0	77	78.8	83.6
235-249	2192	11	50	46.6	1614	15	93	79.4	686	11	160	204.0	82	80.5	82.4
250-264	1844	12	65	47.1	1804	15	83	81.9	702	6	85	190.8	76	82.2	81.3
265-279	1536	6	39	47.7	1694	12	71	84.5	744	16	215	178.5	86	84.0	80.2
280-294	1154	3	26	48.2	1392	6	43	87.2	536	5	93	167.0	45	85.8	79.1
295-309	744	7	94	48.7	1008	9	89	89.9	404	5	124	156.2	97	87.6	78.0
310-1124	1338	6	45	49.3	1828	20	109	92.7	820	17	207	146.0	108	89.5	77.0
UNKNOWN	718	4			330	0			56	2					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.00058	0.00075	0.00216	0.00234	0.27	0.32	-4.18549	-4.84734
55-64	-0.00256	0.00211	0.00185	0.00201	-1.38	1.05	-2.69016	-4.63892
65-74	-0.00514	-0.00462	0.00226	0.00231	-2.27	-1.99	-1.43578	-2.03788
AVERAGE	-0.00233	-0.00033	0.00119	0.00127	-1.95	-0.26		
STANDARDIZED	-0.09864	-0.01661	0.04989	0.05895	-1.98	-0.28		
45-74, UNIVARIATE	-0.00262	0.00144	0.00120	0.00120	-2.19	1.20	-2.82226	-4.46237
45-74, BIVARIATE	-0.00228	-0.00093	0.00121	0.00130	-1.88	-0.72		
45-74, MULTIVARIATE	-0.00238	-0.00049	0.00123	0.00129	-1.94	-0.38		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.37 FOR MEN, 5.12 FOR WOMEN.

TABLE 12-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
062-179	1850	15	81	81.6	1278	29	227	203.1	158	8	506	408.0	158	158.3	170.4
180-199	874	5	57	82.6	654	15	229	197.1	92	6	652	392.7	160	157.9	167.0
200-219	1108	12	108	83.7	866	13	150	191.3	274	6	219	378.0	138	157.6	163.6
220-239	1390	13	94	84.9	1096	22	201	185.7	402	18	448	363.7	184	157.3	160.3
240-259	1916	17	89	86.0	1570	27	172	180.2	776	26	335	350.0	164	157.0	157.1
260-279	1906	14	73	87.1	1634	29	177	174.8	716	21	293	336.7	150	156.6	153.9
280-299	1654	14	85	88.3	1304	21	161	169.6	560	15	268	323.9	142	156.3	150.7
300-319	1144	10	87	89.5	924	13	141	164.6	456	19	417	311.5	166	156.0	147.7
320-339	808	9	111	90.7	492	8	163	159.7	258	5	194	299.6	141	155.7	144.7
340-968	708	6	85	91.9	480	9	188	155.0	116	6	517	288.1	161	155.4	141.7
UNKNOWN	604	4			212	4			22	2					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
062-179	2154	11	51	59.9	1130	5	44	59.2	106	2	189	220.2	53	67.4	85.5
180-199	904	8	88	56.0	636	7	110	63.2	80	4	500	214.8	117	70.2	84.7
200-219	1628	8	49	52.3	1020	6	59	67.4	228	2	88	209.5	56	73.0	83.9
220-239	1710	13	76	48.9	1086	8	74	72.0	292	8	274	204.4	94	76.0	83.1
240-259	2220	12	54	45.7	1444	12	83	76.8	550	8	145	199.4	76	79.1	82.4
260-279	2332	7	30	42.7	1888	18	95	81.9	850	22	259	194.4	93	82.3	81.6
280-299	1940	6	31	39.9	1858	14	75	87.3	926	15	162	189.6	74	85.6	80.9
300-319	1656	2	12	37.3	1788	15	84	93.2	988	18	182	185.0	79	89.0	80.1
320-339	1022	7	68	34.9	1184	12	101	99.3	640	9	141	180.4	98	92.6	79.4
340-968	1056	3	28	32.6	1336	14	105	105.9	648	13	201	175.9	99	96.4	78.6
UNKNOWN	822	5			376	0			70	2					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.00067	-0.00341	0.00149	0.00183	0.45	-1.86	-4.21413	-3.83305
55-64	-0.00156	0.00328	0.00127	0.00164	-1.23	2.00	-2.89717	-4.98159
65-74	-0.00208	-0.00130	0.00201	0.00214	-1.03	-0.61	-2.06771	-2.85649
AVERAGE	-0.00089	-0.00009	0.00087	0.00106	-1.02	-0.08		
STANDARDIZED	-0.05542	-0.00743	0.04911	0.05976	-1.13	-0.12		
45-74, UNIVARIATE	-0.00011	0.00202	0.00082	0.00099	-0.13	2.04	-3.40286	-4.63558
45-74, BIVARIATE	-0.00106	-0.00047	0.00088	0.00106	-1.21	-0.45		
45-74, MULTIVARIATE	0.00021	-0.00011	0.00108	0.00129	0.19	-0.09		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.73 FOR MEN, 7.83 FOR WOMEN.

TABLE 12-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
029-059	388	5	129	85.7	296	8	270	155.0	86	0	0	274.0	169	131.5	136.6
060-069	2536	22	87	86.1	1660	17	102	162.4	628	23	366	291.8	129	139.0	142.8
070-079	4522	39	86	86.5	3206	50	156	170.1	1110	38	342	310.7	144	147.0	149.2
080-089	3278	21	64	86.8	2566	56	218	178.1	860	22	256	330.7	148	155.3	155.9
090-099	1500	15	100	87.2	1270	23	181	186.6	558	18	323	351.9	168	164.1	163.0
100-109	620	9	145	87.6	538	8	149	195.4	196	10	510	374.4	199	173.4	170.3
110-119	284	2	70	88.0	278	9	324	204.6	102	5	490	398.2	241	183.2	177.9
120-129	136	1	74	88.3	154	3	195	214.2	68	1	147	423.3	140	193.6	185.9
130-139	76	2	263	88.7	76	3	395	224.3	54	2	370	449.9	340	204.5	194.2
140-524	266	2	75	89.1	308	9	292	234.8	142	11	775	478.0	307	215.9	202.8
UNKNOWN	356	1			158	4			26	2					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
029-059	358	1	28	31.4	280	3	107	73.5	88	1	114	131.7	69	60.7	63.8
060-069	2994	10	33	35.5	1782	17	95	76.2	642	13	202	145.6	74	66.4	68.9
070-079	5884	26	44	40.3	4296	36	84	79.0	1634	22	135	160.8	71	72.6	74.3
080-089	4432	21	47	45.6	3738	23	62	81.8	1388	22	159	177.6	69	79.4	80.2
090-099	1824	5	27	51.7	1716	11	64	84.8	734	20	272	196.1	84	86.9	86.5
100-109	700	5	71	58.5	750	10	133	87.9	382	7	183	216.4	120	95.0	93.3
110-119	328	2	61	66.3	302	4	132	91.0	138	3	217	238.7	117	103.9	100.6
120-129	114	0	0	75.0	238	2	84	94.3	126	1	79	263.2	63	113.6	108.5
130-139	48	1	208	84.9	66	0	0	97.7	46	1	217	290.0	125	124.1	116.9
140-524	200	6	300	96.1	334	5	150	101.3	154	11	714	319.4	320	135.6	126.1
UNKNOWN	562	5			244	0			46	2					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT): REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00044	0.01259	0.00376	0.00263	0.12	4.78	-4.07294	-5.75738
55-64	0.00480	0.00362	0.00198	0.00273	2.42	1.33	-3.70598	-4.40377
65-74	0.00667	0.01028	0.00196	0.00220	3.41	4.68	-3.21452	-4.17532
AVERAGE	0.00510	0.00913	0.00131	0.00143	3.91	6.36		
STANDARDIZED	0.13951	0.22196	0.03715	0.03405	3.76	6.52		
45-74, UNIVARIATE	0.00570	0.00911	0.00123	0.00131	4.63	6.97	-3.92493	-4.90041
45-74, BIVARIATE	0.00458	0.00773	0.00129	0.00137	3.56	5.63		
45-74, MULTIVARIATE	0.00406	0.00609	0.00137	0.00146	2.97	4.17		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.20 FOR MEN, 6.07 FOR WOMEN.

TABLE 12-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
065-099	1184	11	93	113.7	954	25	262	221.3	418	24	574	445.2	235	205.4	198.5
100-104	864	10	116	106.5	594	11	185	211.2	244	5	205	417.8	153	192.6	187.7
105-109	1292	17	132	99.7	884	15	170	201.6	350	20	571	392.1	206	180.6	177.5
110-114	1532	16	104	93.3	1246	34	273	192.4	424	15	354	367.7	203	169.2	167.8
115-119	1784	18	101	87.3	1442	25	173	183.6	520	15	288	344.8	155	158.6	158.6
120-124	1918	16	83	81.7	1512	22	146	175.1	506	12	237	323.2	127	148.6	149.9
125-129	1568	5	32	76.4	1202	15	125	167.1	428	13	304	302.9	103	139.2	141.7
130-134	1320	9	68	71.5	1016	12	118	159.4	400	11	275	283.8	117	130.4	133.9
135-139	792	5	63	66.9	610	9	148	152.0	198	4	202	265.8	113	122.2	126.5
140-272	1706	12	70	62.6	1048	22	210	145.0	342	13	380	248.9	152	114.4	119.5
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
065-099	2076	16	77	44.5	1092	15	137	98.4	516	15	291	203.4	125	82.9	88.2
100-104	1550	11	71	45.0	870	9	103	94.8	342	11	322	201.2	112	82.5	86.8
105-109	1974	7	35	45.5	1296	9	69	91.3	380	5	132	199.1	58	82.1	85.3
110-114	2058	1	5	46.0	1364	10	73	87.9	514	7	136	196.9	46	81.8	83.8
115-119	1942	6	31	46.6	1502	12	80	84.7	564	9	160	194.8	67	81.4	82.4
120-124	1688	6	36	47.1	1516	7	46	81.5	528	7	133	192.7	54	81.0	81.0
125-129	1384	10	72	47.6	1250	13	104	78.5	490	6	122	190.7	93	80.6	79.6
130-134	1058	4	38	48.1	1034	5	48	75.6	382	7	183	188.6	65	80.3	78.3
135-139	876	3	34	48.7	836	8	96	72.8	376	7	186	186.6	86	79.9	77.0
140-272	2838	18	63	49.2	2986	23	77	70.1	1286	29	226	184.6	98	79.5	75.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.01350	0.00226	0.00594	0.00488	-2.27	0.46	-2.44405	-4.93335
55-64	-0.00975	-0.00766	0.00490	0.00465	-1.99	-1.65	-2.12177	-3.16123
65-74	-0.01386	-0.00225	0.00570	0.00446	-2.43	-0.50	-0.97408	-2.94155
AVERAGE	-0.01206	-0.00269	0.00315	0.00269	-3.83	-1.00		
STANDARDIZED	-0.18939	-0.05956	0.04966	0.06050	-3.81	-0.98		
45-74, UNIVARIATE	-0.01342	-0.00093	0.00314	0.00264	-4.28	-0.35	-1.84141	-3.99257
45-74, BIVARIATE	-0.01171	-0.00349	0.00315	0.00271	-3.72	-1.29		
45-74, MULTIVARIATE	-0.01486	-0.00503	0.00331	0.00281	-4.48	-1.79		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.38 FOR MEN, 2.18 FOR WOMEN.

TABLE 12-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
12-31	156	4	256	209.8	310	16	516	369.8	244	20	820	609.0	563	420.3	321.0
32-35	154	4	260	179.0	342	7	205	316.5	264	10	379	517.9	276	342.2	277.6
36-39	476	10	210	152.6	640	22	344	270.5	420	12	286	439.1	286	277.7	239.8
40-43	806	7	87	129.9	1188	36	303	230.8	602	25	415	371.3	262	224.7	206.8
44-47	1702	17	100	110.6	1748	29	166	196.7	744	30	403	313.2	181	181.5	178.2
48-51	1772	19	107	94.1	1688	20	118	167.5	602	16	266	263.7	135	146.4	153.4
52-55	2634	20	76	80.0	1828	21	115	142.5	462	9	195	221.7	102	117.8	132.0
56-59	2448	14	57	67.9	1366	21	154	121.1	294	4	136	186.1	95	94.8	113.4
60-63	1846	14	76	57.7	812	9	111	102.8	120	3	250	156.0	94	76.1	97.4
64-85	1962	10	51	49.0	558	9	161	87.3	64	2	313	130.6	81	61.1	83.7
UNKNOWN	6	0			30	0			14	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
04-19	90	1	111	128.2	278	6	216	191.8	280	21	750	406.7	432	269.9	194.9
20-23	196	1	51	106.8	406	6	148	155.9	364	12	330	320.2	197	205.8	161.0
24-27	404	4	99	88.8	894	15	168	126.6	682	11	161	251.2	152	156.5	132.9
28-31	988	10	101	73.8	1832	19	104	102.7	1062	14	132	196.4	111	118.7	109.5
32-35	2162	8	37	61.4	2928	23	79	83.2	1278	20	156	153.1	80	89.8	90.2
36-39	2994	16	53	51.0	2888	16	55	67.4	900	15	167	119.2	69	67.9	74.2
40-43	4092	26	64	42.3	2446	16	65	54.5	512	8	156	92.6	71	51.2	61.1
44-47	3236	10	31	35.1	1316	8	61	44.1	220	0	0	71.9	38	38.7	50.2
48-51	2040	3	15	29.2	506	1	20	35.7	62	1	161	55.7	19	29.1	41.2
52-77	1226	3	24	24.2	238	1	42	28.8	18	1	556	43.2	34	22.0	33.9
UNKNOWN	16	0			14	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.04131	-0.04690	0.00982	0.01422	-4.21	-3.30	-1.88865	-2.79328
55-64	-0.04174	-0.05357	0.00788	0.01207	-5.30	-4.44	-1.27504	-2.25744
65-74	-0.04563	-0.06440	0.01015	0.01315	-4.50	-4.90	-0.60654	-1.26520
AVERAGE	-0.04266	-0.05526	0.00526	0.00754	-8.12	-7.33		
STANDARDIZED	-0.38413	-0.41099	0.04732	0.05604	-8.12	-7.33		
45-74, UNIVARIATE	-0.05565	-0.07111	0.00491	0.00679	-11.35	-10.48	-0.71876	-1.58364
45-74, BIVARIATE	-0.03890	-0.04958	0.00534	0.00767	-7.29	-6.46		
45-74, MULTIVARIATE	-0.03153	-0.04013	0.00556	0.00810	-5.68	-4.95		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.12 FOR MEN, 0.85 FOR WOMEN.

TABLE 12-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
37-63	2136	8	37	51.0	2008	29	144	131.1	632	19	301	270.2	117	111.0	110.7
64-67	1352	7	52	57.8	1086	11	101	143.2	414	5	121	289.0	81	121.4	121.2
68-71	1868	16	86	65.5	1412	20	142	156.5	574	17	296	309.0	138	132.8	132.6
72-75	2636	16	61	74.3	1944	30	154	170.9	722	26	360	330.3	136	145.2	145.1
76-79	788	12	152	84.1	510	14	275	186.6	160	4	250	352.9	206	158.7	158.7
80-83	1708	15	88	95.3	1218	20	164	203.7	436	14	321	377.0	146	173.4	173.6
84-87	1004	8	80	108.0	714	18	252	222.3	242	14	579	402.5	204	189.5	189.7
88-91	994	12	121	122.2	602	8	133	242.4	240	11	458	429.7	169	206.9	207.3
92-95	526	9	171	138.3	390	20	513	264.4	156	11	705	458.5	373	225.9	226.4
96-170	950	16	168	156.5	626	20	319	288.1	254	11	433	489.0	257	246.5	247.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
37-63	1736	7	40	33.8	1660	8	48	60.1	562	5	89	158.9	51	60.4	62.4
64-67	1552	5	32	36.5	1062	4	38	64.4	378	6	159	165.6	50	64.6	66.3
68-71	2274	9	40	39.4	1728	7	41	68.9	670	15	224	172.6	66	69.1	70.4
72-75	3472	11	32	42.4	2632	24	91	73.8	854	14	164	180.0	70	73.9	74.8
76-79	978	5	51	45.8	826	7	85	79.0	256	5	195	187.6	83	79.0	79.4
80-83	2314	13	56	49.4	1818	20	110	84.5	860	21	244	195.5	108	84.5	84.3
84-87	1560	9	58	53.2	1098	13	118	90.5	492	10	203	203.8	102	90.3	89.5
88-91	1260	4	32	57.4	1034	12	116	96.8	436	11	252	212.3	99	96.6	95.0
92-95	782	8	102	61.9	648	5	77	103.6	276	3	109	221.3	94	103.3	100.9
96-170	1516	11	73	66.7	1240	11	89	110.8	594	13	219	230.6	104	110.4	107.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.03175	0.01904	0.00667	0.00832	4.76	2.29	-6.54457	-6.16958
55-64	0.02279	0.01727	0.00511	0.00670	4.46	2.58	-5.02804	-5.47960
65-74	0.01779	0.01076	0.00633	0.00741	2.81	1.45	-3.96548	-4.08430
AVERAGE	0.02368	0.01558	0.00342	0.00427	6.93	3.65		
STANDARDIZED	0.30639	0.19950	0.04403	0.05442	6.96	3.67		
45-74, UNIVARIATE	0.02294	0.01705	0.00345	0.00427	6.66	3.99	-5.20734	-5.46183
45-74, BIVARIATE	0.02328	0.01528	0.00341	0.00427	6.83	3.58		
45-74, MULTIVARIATE	0.01774	0.01078	0.00357	0.00451	4.97	2.39		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.36 FOR MEN, 0.66 FOR WOMEN.

TABLE 12-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NONE	5304	26	49	57.4	5080	75	148	157.6	2264	65	287	275.3	131	137.9	117.1
UNDER 20	1980	16	81	73.9	1670	33	198	176.7	712	25	351	356.3	170	151.5	145.3
20	3204	41	128	95.1	2058	49	238	198.1	486	15	309	458.8	183	166.5	179.8
OVER 20	3396	34	100	122.2	1652	30	182	221.9	358	26	726	587.0	166	182.8	222.2
UNKNOWN	78	2			50	3			10	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NONE	9808	33	34	35.8	9708	73	75	76.4	4300	80	186	187.1	78	78.3	70.6
UNDER 20	4084	22	54	47.8	2350	22	94	86.2	712	14	197	198.8	81	81.6	86.6
20	2456	17	69	63.7	1126	11	98	97.1	252	7	278	211.3	91	85.1	106.3
OVER 20	1028	7	68	84.9	514	5	97	109.5	92	1	109	224.5	80	88.6	130.3
UNKNOWN	68	3			48	0			22	1					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.25634	0.29122	0.07783	0.10875	3.29	2.68	-4.45616	-4.93221
55-64	0.11843	0.12200	0.06309	0.11066	1.88	1.10	-3.42500	-4.16555
65-74	0.27516	0.06326	0.08076	0.15295	3.41	0.41	-2.84276	-3.24740
AVERAGE	0.20058	0.17846	0.04190	0.06918	4.79	2.58		
STANDARDIZED	0.22616	0.12978	0.04695	0.05463	4.82	2.38		
45-74, UNIVARIATE	0.09721	0.04182	0.04041	0.06745	2.41	0.62	-3.56293	-4.14035
45-74, BIVARIATE	0.22238	0.20939	0.04206	0.06832	5.29	3.06		
45-74, MULTIVARIATE	0.26379	0.23476	0.04333	0.06904	6.09	3.40		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.06 FOR MEN, 1.90 FOR WOMEN.

TABLE 12-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	7304	52	71	64.7	4748	67	141	131.5	1484	36	243	251.1	115	110.1	117.4
BORDER	4240	30	71	93.1	3400	55	162	188.5	1462	54	369	352.1	153	166.0	165.5
DEFINITE	2418	37	153	133.5	2362	68	288	268.7	884	42	475	489.4	260	248.9	232.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	9858	38	39	37.0	4986	35	70	71.4	1220	13	107	117.8	54	54.7	66.5
BORDER	4956	23	46	52.4	4908	41	84	81.2	2144	40	187	173.8	87	83.5	83.5
DEFINITE	2630	21	80	74.2	3852	35	91	92.4	2014	50	248	255.1	125	127.0	104.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.36889	0.35102	0.11465	0.13883	3.22	2.53	-4.33409	-4.89800
55-64	0.37133	0.13116	0.09096	0.11953	4.08	1.10	-3.61115	-4.23519
65-74	0.35941	0.40060	0.11600	0.14062	3.10	2.85	-2.93978	-3.72454
AVERAGE	0.36738	0.27633	0.06072	0.07615	6.05	3.63		
STANDARDIZED	0.28484	0.21466	0.04709	0.05846	6.05	3.67		
45-74, UNIVARIATE	0.42241	0.42838	0.05984	0.07237	7.06	5.92	-3.79400	-4.50419
45-74, BIVARIATE	0.35473	0.23195	0.06090	0.07636	5.83	3.04		
45-74, MULTIVARIATE	0.20123	0.08501	0.06568	0.08110	3.06	1.05		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.01 FOR MEN, 2.55 FOR WOMEN.

TABLE 12-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	11736	84	72	69.8	7898	108	137	135.5	2436	65	267	257.0	116	114.6	124.8
POSSIBLE	1084	9	83	121.9	1168	25	214	231.0	564	17	301	386.5	181	210.1	201.0
DEFINITE	1130	26	230	211.4	1442	57	395	388.4	830	50	602	573.5	391	379.0	320.3
UNKNOWN	12	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	14102	58	41	39.8	8640	48	56	55.4	2484	31	125	121.7	54	53.5	62.2
POSSIBLE	1600	6	38	60.9	2230	20	90	91.1	992	17	171	186.9	89	97.2	94.7
DEFINITE	1736	18	104	92.9	2868	43	150	149.4	1902	55	289	285.1	178	175.3	143.7
UNKNOWN	6	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.56885	0.42924	0.11555	0.13876	4.92	3.09	-4.25783	-4.82527
55-64	0.55329	0.50579	0.08433	0.10626	6.56	4.76	-3.58082	-4.49208
65-74	0.43591	0.44273	0.10046	0.11480	4.34	3.86	-2.91544	-3.69107
AVERAGE	0.52003	0.46530	0.05638	0.06798	9.22	6.84		
STANDARDIZED	0.36615	0.35791	0.03957	0.05297	9.25	6.76		
45-74, UNIVARIATE	0.62580	0.60554	0.05525	0.06431	11.33	9.42	-3.75257	-4.52601
45-74, BIVARIATE	0.49493	0.42789	0.05706	0.06811	8.67	6.28		
45-74, MULTIVARIATE	0.38080	0.31820	0.06295	0.07515	6.05	4.23		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.04 FOR MEN, 0.25 FOR WOMEN.

TABLE 12-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	13470	99	73	72.6	9758	145	149	150.8	3510	99	282	283.2	128	128.9	133.9
POSSIBLE	278	4	144	231.7	408	19	466	361.6	130	9	692	629.7	392	354.7	327.7
DEFINITE	214	16	748	690.6	344	26	756	817.5	190	24	1263	1284.6	882	902.8	751.3
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	17126	77	45	44.6	12966	90	69	70.0	4896	74	151	151.6	69	69.1	72.4
POSSIBLE	204	1	49	115.3	444	9	203	165.6	236	9	381	363.5	215	195.7	171.6
DEFINITE	114	4	351	291.6	336	12	357	381.6	246	20	813	821.6	517	529.4	394.1
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.19340	0.96476	0.14371	0.26807	8.30	3.60	-4.21773	-4.71126
55-64	0.91922	0.88028	0.10704	0.14785	8.59	5.95	-3.47081	-4.25392
65-74	0.87532	0.91943	0.12514	0.13185	6.99	6.97	-2.81269	-3.46534
AVERAGE	0.97170	0.90953	0.07079	0.09238	13.73	9.85		
STANDARDIZED	0.36106	0.29409	0.02615	0.03131	13.81	9.39		
45-74, UNIVARIATE	1.05993	1.06695	0.07019	0.08952	15.10	11.92	-3.63240	-4.26738
45-74, BIVARIATE	0.94271	0.88542	0.07182	0.09207	13.13	9.62		
45-74, MULTIVARIATE	0.90561	0.77789	0.08055	0.10406	11.24	7.48		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.21 FOR MEN, 0.09 FOR WOMEN.

TABLE 12-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	13756	112	81	81.4	10218	171	167	167.4	3618	123	340	340.0	147	147.1	150.2
YES	206	7	340	339.8	292	19	651	650.7	212	9	425	424.5	493	493.0	375.1
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	17330	81	47	46.7	13466	105	78	78.0	5274	98	186	185.8	79	78.7	79.4
YES	114	1	88	87.7	280	6	214	214.3	104	5	481	480.8	241	241.0	193.4
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.48273	0.63785	0.40293	1.01505	3.68	0.63	-4.10117	-4.66321
55-64	1.46330	1.03902	0.25798	0.42872	5.67	2.42	-3.36305	-4.14510
65-74	0.24044	1.01385	0.36075	0.48153	0.67	2.11	-2.61793	-3.25456
AVERAGE	1.14196	0.99259	0.18612	0.30537	6.14	3.25		
STANDARDIZED	0.19312	0.12233	0.02979	0.03924	6.48	3.12		
45-74, UNIVARIATE	1.28294	1.15207	0.18502	0.30188	6.93	3.82	-3.49591	-4.13522
45-74, BIVARIATE	0.97234	0.91745	0.18907	0.30435	5.14	3.01		
45-74, MULTIVARIATE	0.98013	1.01042	0.19878	0.30855	4.93	3.27		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 8.51 FOR MEN, 0.14 FOR WOMEN.

TABLE 12-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	13270	109	82	82.1	9728	159	163	163.4	3400	110	324	323.5	143	143.2	147.1
YES	692	10	145	144.5	782	31	396	396.4	430	22	512	511.6	331	330.9	276.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	16796	73	43	43.5	12826	98	76	76.4	4800	86	179	179.2	75	74.7	77.0
YES	648	9	139	138.9	920	13	141	141.3	578	17	294	294.1	182	181.7	143.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.57768	1.18121	0.33512	0.35792	1.72	3.30	-4.09220	-4.73656
55-64	0.93536	0.62811	0.20381	0.29920	4.59	2.10	-3.38748	-4.16572
65-74	0.49936	0.51980	0.24567	0.27306	2.03	1.90	-2.67101	-3.29239
AVERAGE	0.72528	0.71656	0.14207	0.17571	5.11	4.08		
STANDARDIZED	0.19257	0.18503	0.03767	0.04316	5.11	4.29		
45-74, UNIVARIATE	0.87698	0.91155	0.14043	0.17481	6.24	5.21	-3.52394	-4.18918
45-74, BIVARIATE	0.66527	0.63982	0.14289	0.17765	4.66	3.60		
45-74, MULTIVARIATE	0.53077	0.47667	0.14606	0.18112	3.63	2.63		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.10 FOR MEN, 2.29 FOR WOMEN.

TABLE 12-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	13700	110	80	80.3	10108	166	164	164.2	3632	117	322	322.1	143	143.2	146.3
YES	220	9	409	409.1	370	22	595	594.6	190	15	789	789.5	590	589.7	481.2
UNKNOWN	42	0			32	2			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	16848	76	45	45.1	13312	104	78	78.1	5196	94	181	180.9	77	77.5	77.3
YES	554	5	90	90.3	394	7	178	177.7	166	9	542	542.2	189	188.5	195.6
UNKNOWN	42	1			40	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.69744	0.70268	0.36090	0.46578	4.70	1.51	-4.11533	-4.69904
55-64	1.37984	0.84202	0.24045	0.39735	5.74	2.12	-3.38255	-4.14314
65-74	1.00165	1.17551	0.29716	0.36832	3.37	3.19	-2.67562	-3.28235
AVERAGE	1.32902	0.94118	0.16598	0.23367	8.01	4.03		
STANDARDIZED	0.23047	0.16139	0.02839	0.04010	8.12	4.02		
45-74, UNIVARIATE	1.51174	0.91172	0.16512	0.23063	9.16	3.95	-3.52374	-4.15133
45-74, BIVARIATE	1.27610	0.95712	0.16813	0.23252	7.59	4.12		
45-74, MULTIVARIATE	1.05634	0.48527	0.18013	0.25417	5.86	1.91		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.30 FOR MEN, 0.73 FOR WOMEN.

TABLE 12-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	13586	117	86	86.1	10122	177	175	174.9	3660	120	328	327.9	151	151.3	152.3
YES	338	2	59	59.2	356	11	309	309.0	162	12	741	740.7	292	292.1	257.7
UNKNOWN	38	0			32	2			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	17210	74	43	43.0	13456	105	78	78.0	5254	97	185	184.6	77	76.8	77.4
YES	194	7	361	360.8	254	6	236	236.2	108	6	556	555.6	342	341.7	302.9
UNKNOWN	40	1			36	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	-0.38075	2.19350	0.71742	0.40939	-0.53	5.36	-4.04410	-4.74740
55-64	0.59747	1.14031	0.32055	0.42966	1.86	2.65	-3.31757	-4.14434
65-74	0.90756	1.18182	0.32672	0.44520	2.78	2.65	-2.65676	-3.26126
AVERAGE	0.64520	1.53555	0.21799	0.24672	2.96	6.22		
STANDARDIZED	0.11405	0.19448	0.04052	0.03022	2.81	6.43		
45-74, UNIVARIATE	0.68734	1.54763	0.21207	0.24530	3.24	6.31	-3.46739	-4.16001
45-74, BIVARIATE	0.55200	1.41874	0.21441	0.24827	2.57	5.71		
45-74, MULTIVARIATE	0.46485	1.09961	0.22449	0.26653	2.07	4.13		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.71 FOR MEN, 4.06 FOR WOMEN.

TABLE 12-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	13544	113	83	83.4	9934	171	172	172.1	3544	120	339	338.6	150	149.5	152.0
YES	418	6	144	143.5	576	19	330	329.9	286	12	420	419.6	289	289.1	237.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	17104	76	44	44.4	13192	101	77	76.6	4996	84	168	168.1	74	74.0	76.2
YES	340	6	176	176.5	554	10	181	180.5	382	19	497	497.4	274	274.3	211.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.55489	1.40615	0.42496	0.43132	1.31	3.26	-4.07634	-4.71426
55-64	0.68360	0.87900	0.24981	0.33734	2.74	2.61	-3.33387	-4.16367
65-74	0.23196	1.15517	0.31608	0.26602	0.73	4.34	-2.62225	-3.35822
AVERAGE	0.51784	1.11708	0.17797	0.18800	2.91	5.94		
STANDARDIZED	0.11631	0.21798	0.03938	0.03720	2.95	5.86		
45-74, UNIVARIATE	0.68849	1.35227	0.17674	0.18471	3.90	7.32	-3.47949	-4.19884
45-74, BIVARIATE	0.46548	1.05383	0.17902	0.18800	2.60	5.61		
45-74, MULTIVARIATE	0.36660	0.79181	0.18454	0.19848	1.99	3.99		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.27 FOR MEN, 0.97 FOR WOMEN.

TABLE 12-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	119	85		10510	190	181		3830	132	345		156		
NO	13148	109	83	82.9	9626	164	170	170.4	3408	112	329	328.6	147	147.0	149.9
YES	814	10	123	122.9	884	26	294	294.1	422	20	474	473.9	264	264.2	228.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	82	47		13746	111	81		5378	103	192		81		
NO	16864	72	43	42.7	12866	99	77	76.9	4824	81	168	167.9	73	72.9	75.5
YES	580	10	172	172.4	880	12	136	136.4	554	22	397	397.1	218	218.5	174.2
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.40146	1.42234	0.33444	0.34290	1.20	4.15	-4.08281	-4.75455
55-64	0.57195	0.58435	0.21721	0.30972	2.63	1.89	-3.34454	-4.15857
65-74	0.39771	0.90938	0.25454	0.24930	1.56	3.65	-2.65425	-3.35960
AVERAGE	0.47949	0.93721	0.14813	0.16898	3.24	5.55		
STANDARDIZED	0.13203	0.22932	0.04099	0.04040	3.22	5.68		
45-74, UNIVARIATE	0.61019	1.12715	0.14673	0.16671	4.16	6.76	-3.49659	-4.21301
45-74, BIVARIATE	0.44247	0.85931	0.14854	0.16962	2.98	5.07		
45-74, MULTIVARIATE	0.34414	0.64122	0.15376	0.17846	2.24	3.59		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.34 FOR MEN, 3.31 FOR WOMEN.

TABLE 13-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
074-109	856	2	23	22.6	586	5	85	53.4	168	4	238	140.1	68	43.3	51.7
110-119	2348	6	26	27.6	1276	4	31	64.9	342	2	58	150.4	30	52.6	60.3
120-129	3026	10	33	33.7	1910	20	105	78.8	522	7	134	161.4	68	64.0	70.4
130-139	3028	11	36	41.2	1986	20	101	95.6	718	14	195	173.1	79	77.8	82.1
140-149	2002	8	40	50.2	1588	14	88	116.0	640	17	266	185.7	92	94.5	95.7
150-159	1230	10	81	61.3	1122	12	107	140.6	488	4	82	199.2	92	114.7	111.4
160-169	662	6	91	74.7	752	15	199	170.2	350	6	171	213.6	153	139.1	129.7
170-179	366	3	82	91.1	516	5	97	205.7	200	4	200	228.9	111	168.6	151.0
180-189	222	0	0	110.9	316	9	285	248.3	154	7	455	245.4	231	204.0	175.5
190-300	222	5	225	134.9	458	20	437	299.2	248	7	282	262.9	345	246.4	203.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
074-109	1570	2	13	7.3	518	3	58	24.4	104	0	0	32.2	23	14.8	19.7
110-119	3044	3	10	8.7	1272	3	24	27.2	284	1	35	40.6	15	18.3	23.2
120-129	3450	4	12	10.5	1846	4	22	30.3	414	2	48	51.1	18	22.8	27.2
130-139	3442	1	3	12.5	2324	5	22	33.7	730	4	55	64.3	15	28.2	32.0
140-149	2112	4	19	15.0	2014	5	25	37.6	858	10	117	80.9	38	35.0	37.6
150-159	1512	3	20	18.0	1808	9	50	41.9	806	6	74	101.8	44	43.3	44.2
160-169	882	1	11	21.5	1350	7	52	46.6	664	9	136	127.8	59	53.7	51.9
170-179	560	1	18	25.7	944	8	85	51.9	538	7	130	160.3	78	66.4	61.0
180-189	414	1	24	30.8	692	5	72	57.8	390	8	205	200.6	94	82.2	71.6
190-300	458	4	87	36.9	978	6	61	64.4	590	19	322	250.7	143	101.6	84.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02010	0.01809	0.00524	0.00599	3.84	3.02	-7.50419	-8.43022
55-64	0.01972	0.01087	0.00312	0.00437	6.32	2.48	-6.59896	-6.45914
65-74	0.00728	0.02331	0.00439	0.00408	1.66	5.71	-4.31025	-7.48694
AVERAGE	0.01641	0.01763	0.00229	0.00267	7.18	6.60		
STANDARDIZED	0.38760	0.45828	0.05330	0.06941	7.27	6.60		
45-74, UNIVARIATE	0.01980	0.02161	0.00223	0.00231	8.87	9.37	-6.81977	-8.08900
45-74, BIVARIATE	0.01564	0.01627	0.00230	0.00264	6.79	6.15		
45-74, MULTIVARIATE	0.00581	0.00705	0.00257	0.00293	2.27	2.41		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 5.95 FOR MEN, 4.33 FOR WOMEN.

TABLE 13-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
020-069	862	5	58	31.6	834	6	72	71.1	454	14	308	175.8	116	66.6	63.7
070-074	1758	8	46	34.4	1448	17	117	80.9	652	10	153	179.7	91	72.5	70.0
075-079	1414	5	35	37.6	1080	5	46	92.1	390	5	128	183.6	52	78.8	77.1
080-084	3384	8	24	41.0	2364	25	106	104.7	846	9	106	187.7	64	85.7	84.8
085-089	1872	7	37	44.7	1144	9	79	119.1	394	5	127	191.8	62	93.2	93.2
090-094	1950	7	36	48.8	1478	22	149	135.4	498	9	181	196.0	97	101.4	102.5
095-099	920	7	76	53.2	666	6	90	153.8	176	5	284	200.3	102	110.2	112.7
100-104	998	6	60	58.0	756	16	212	174.7	212	8	377	204.7	153	119.8	123.9
105-109	306	1	33	63.2	198	2	101	198.3	44	1	227	209.2	73	130.2	136.1
110-160	498	7	141	69.0	542	16	295	224.9	164	6	366	213.8	241	141.5	149.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
020-069	1608	3	19	6.4	904	4	44	31.8	454	7	154	84.4	47	25.3	27.2
070-074	2800	2	7	7.8	1752	6	34	33.8	672	4	60	92.9	23	28.5	30.0
075-079	1968	1	5	9.5	1252	7	56	35.8	460	6	130	102.3	38	32.0	33.2
080-084	4092	5	12	11.5	2984	9	30	38.0	1244	10	80	112.6	29	36.0	36.7
085-089	2066	1	5	14.1	1654	3	18	40.3	534	8	150	123.9	28	40.5	40.6
090-094	2214	2	9	17.1	2166	10	46	42.7	862	8	93	136.4	38	45.5	44.9
095-099	836	2	24	20.9	884	3	34	45.3	354	6	169	150.0	53	51.1	49.6
100-104	858	2	23	25.4	1048	3	29	48.0	404	5	124	165.0	43	57.5	54.9
105-109	288	2	69	31.0	306	1	33	50.9	88	2	227	181.4	73	64.6	60.6
110-160	714	4	56	37.8	796	9	113	54.0	306	10	327	199.4	127	72.6	67.0
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01754	0.03975	0.01022	0.01217	1.72	3.27	-6.24310	-9.34985
55-64	0.02631	0.01184	0.00634	0.00976	4.15	1.21	-6.01492	-5.84912
65-74	0.00453	0.01964	0.00890	0.00886	0.51	2.22	-3.61791	-5.39078
AVERAGE	0.01869	0.02144	0.00461	0.00578	4.06	3.71		
STANDARDIZED	0.23984	0.28184	0.05894	0.07540	4.07	3.74		
45-74, UNIVARIATE	0.01708	0.02362	0.00474	0.00566	3.61	4.17	-5.45806	-6.87589
45-74, BIVARIATE	0.01945	0.02025	0.00458	0.00585	4.24	3.46		
45-74, MULTIVARIATE	0.00701	0.00529	0.00454	0.00595	1.54	0.89		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.99 FOR MEN, 3.27 FOR WOMEN.

TABLE 13-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
096-189	1604	6	37	32.7	1306	12	92	109.1	512	12	234	219.0	88	86.8	84.8
190-204	1366	5	37	35.4	1094	12	110	111.3	472	14	297	209.2	106	88.2	86.7
205-219	2016	2	10	38.4	1320	15	114	113.6	504	9	179	199.7	68	89.6	88.7
220-234	2084	12	58	41.6	1632	23	141	115.9	584	9	154	190.7	102	91.0	90.7
235-249	1754	8	46	45.1	1428	22	154	118.3	444	10	225	182.1	110	92.5	92.7
250-264	1586	7	44	48.9	1272	10	79	120.7	422	3	71	173.8	61	93.9	94.8
265-279	1136	8	70	52.9	906	12	132	123.1	328	5	152	165.9	105	95.4	96.9
280-294	766	6	78	57.3	580	3	52	125.6	278	2	72	158.4	68	96.9	99.0
295-309	458	4	87	62.1	358	6	168	128.2	124	5	403	151.2	160	98.5	101.2
310-1124	650	2	31	67.3	426	6	141	130.8	142	3	211	144.3	90	100.0	103.5
UNKNOWN	542	1			188	3			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
096-189	1724	0	0	9.0	606	4	66	27.4	192	5	260	132.1	36	27.8	32.3
190-204	1680	1	6	9.8	748	1	13	29.5	258	7	271	129.8	34	29.8	33.7
205-219	2068	2	10	10.6	1088	7	64	31.7	400	3	75	127.5	34	32.0	35.2
220-234	2446	2	8	11.6	1634	3	18	34.1	580	8	138	125.3	28	34.4	36.7
235-249	2192	4	18	12.6	1614	6	37	36.7	686	7	102	123.1	38	36.9	38.3
250-264	1844	3	16	13.7	1804	7	39	39.4	702	3	43	120.9	30	39.6	40.0
265-279	1536	1	7	14.8	1694	5	30	42.4	744	10	134	118.8	40	42.6	41.7
280-294	1154	1	9	16.1	1392	5	36	45.6	536	5	93	116.7	36	45.7	43.5
295-309	744	6	81	17.5	1008	6	60	49.0	404	5	124	114.6	79	49.1	45.4
310-1124	1338	2	15	19.0	1828	11	60	52.7	820	11	134	112.6	60	52.7	47.4
UNKNOWN	718	2			330	0			56	2					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00539	0.00556	0.00255	0.00222	2.11	2.50	-6.00699	-7.33072
55-64	0.00138	0.00488	0.00219	0.00273	0.63	1.79	-4.05433	-6.09119
65-74	-0.00321	-0.00122	0.00296	0.00281	-1.08	-0.43	-2.49786	-3.38500
AVERAGE	0.00157	0.00351	0.00145	0.00147	1.09	2.39		
STANDARDIZED	0.06357	0.16123	0.06055	0.06815	1.05	2.37		
45-74, UNIVARIATE	0.00107	0.00478	0.00148	0.00137	0.72	3.48	-4.23089	-6.06113
45-74, BIVARIATE	0.00151	0.00287	0.00150	0.00172	1.00	1.66		
45-74, MULTIVARIATE	0.00151	0.00345	0.00153	0.00163	0.98	2.12		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.86 FOR MEN, 3.92 FOR WOMEN.

TABLE 13-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
062-179	1850	8	43	37.9	1278	16	125	113.2	158	4	253	205.3	85	83.1	88.7
180-199	874	3	34	39.5	654	7	107	114.2	92	3	326	201.7	80	85.2	89.5
200-219	1108	6	54	41.1	866	9	104	115.3	274	2	73	198.2	76	87.3	90.3
220-239	1390	3	22	42.8	1096	15	137	116.3	402	14	348	194.8	111	89.4	91.2
240-259	1916	8	42	44.5	1570	17	108	117.4	776	14	180	191.4	92	91.6	92.0
260-279	1906	8	42	46.4	1634	19	116	118.5	716	9	126	188.0	85	93.9	92.8
280-299	1654	8	48	48.2	1304	17	130	119.6	560	8	143	184.8	94	96.2	93.7
300-319	1144	7	61	50.2	924	9	97	120.7	456	10	219	181.5	103	98.5	94.5
320-339	808	5	62	52.3	492	5	102	121.8	258	4	155	178.4	90	101.0	95.4
340-968	708	4	56	54.4	480	7	146	122.9	116	4	345	175.3	115	103.4	96.2
UNKNOWN	604	1			212	3			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
062-179	2154	2	9	10.1	1130	2	18	27.1	106	1	94	137.8	15	24.7	34.2
180-199	904	1	11	10.8	636	5	79	29.3	80	2	250	134.7	49	27.1	35.3
200-219	1628	1	6	11.4	1020	1	10	31.7	228	2	88	131.7	14	29.8	36.4
220-239	1710	4	23	12.2	1086	6	55	34.3	292	6	205	128.7	52	32.7	37.6
240-259	2220	3	14	12.9	1444	6	42	37.2	550	7	127	125.8	38	35.9	38.9
260-279	2332	3	13	13.7	1888	8	42	40.2	850	13	153	123.0	47	39.5	40.1
280-299	1940	2	10	14.6	1858	4	22	43.6	926	7	76	120.2	28	43.4	41.5
300-319	1656	0	0	15.5	1788	9	50	47.1	988	10	101	117.5	43	47.6	42.8
320-339	1022	4	39	16.4	1184	7	59	51.0	640	7	109	114.9	63	52.3	44.2
340-968	1056	2	19	17.4	1336	7	52	55.2	648	9	139	112.3	59	57.4	45.6
UNKNOWN	822	2			376	0			70	2					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00202	0.00302	0.00203	0.00334	0.99	0.90	-5.21725	-6.71161
55-64	0.00047	0.00399	0.00155	0.00233	0.30	1.71	-3.84579	-5.89052
65-74	-0.00091	-0.00117	0.00267	0.00267	-0.34	-0.44	-2.99562	-3.36487
AVERAGE	0.00070	0.00203	0.00112	0.00155	0.62	1.31		
STANDARDIZED	0.03298	0.09543	0.06331	0.08514	0.52	1.12		
45-74, UNIVARIATE	0.00124	0.00473	0.00106	0.00136	1.17	3.47	-4.29088	-6.11194
45-74, BIVARIATE	0.00046	0.00162	0.00114	0.00158	0.41	1.03		
45-74, MULTIVARIATE	0.00022	0.00010	0.00139	0.00191	0.16	0.05		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.81 FOR MEN, 2.23 FOR WOMEN.

TABLE 13-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
029-059	388	2	52	43.0	296	4	135	92.5	86	0	0	136.9	78	71.0	73.6
060-069	2536	9	35	43.4	1660	7	42	99.5	628	11	175	149.3	56	76.7	78.8
070-079	4522	24	53	43.8	3206	34	106	106.9	1110	19	171	162.7	87	82.9	84.3
080-089	3278	11	34	44.2	2566	34	133	114.9	860	12	140	177.3	85	89.6	90.3
090-099	1500	7	47	44.6	1270	18	142	123.5	558	12	215	193.2	111	96.8	96.6
100-109	620	3	48	45.0	538	6	112	132.7	196	4	204	210.4	96	104.6	103.3
110-119	284	1	35	45.4	278	6	216	142.6	102	3	294	229.0	151	113.0	110.5
120-129	136	0	0	45.9	154	1	65	153.2	68	1	147	249.3	56	122.1	118.2
130-139	76	2	263	46.3	76	3	395	164.6	54	1	185	271.2	291	131.8	126.5
140-524	266	1	38	46.7	308	9	292	176.7	142	9	634	294.9	265	142.4	135.2
UNKNOWN	356	1			158	2			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
029-059	358	0	0	7.5	280	1	36	31.6	88	0	0	75.0	14	26.2	28.0
060-069	2994	2	7	8.8	1782	11	62	34.1	642	10	156	84.8	42	29.5	31.0
070-079	5884	6	10	10.2	4296	15	35	36.7	1634	15	92	95.8	30	33.1	34.3
080-089	4432	8	18	12.0	3738	9	24	39.6	1388	12	86	108.2	30	37.2	38.0
090-099	1824	0	0	14.0	1716	4	23	42.6	734	10	136	122.2	33	41.9	42.0
100-109	700	1	14	16.4	750	6	80	46.0	382	4	105	137.9	60	47.0	46.6
110-119	328	0	0	19.1	302	3	99	49.5	138	2	145	155.6	65	52.9	51.5
120-129	114	0	0	22.3	238	1	42	53.4	126	1	79	175.5	42	59.4	57.0
130-139	48	1	208	26.1	66	0	0	57.5	46	0	0	197.7	63	66.7	63.1
140-524	200	3	150	30.5	334	5	150	62.0	154	10	649	222.8	262	74.9	69.9
UNKNOWN	562	3			244	0			46	2					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT): REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00093	0.01563	0.00505	0.00372	0.18	4.20	-4.79856	-7.36095
55-64	0.00739	0.00756	0.00198	0.00267	3.73	2.83	-4.37751	-5.47389
65-74	0.00889	0.01243	0.00214	0.00235	4.16	5.30	-4.05915	-4.86763
AVERAGE	0.00754	0.01128	0.00140	0.00159	5.40	7.08		
STANDARDIZED	0.21034	0.28292	0.03992	0.03938	5.27	7.18		
45-74, UNIVARIATE	0.00790	0.01178	0.00132	0.00145	5.99	8.12	-4.67516	-5.89394
45-74, BIVARIATE	0.00692	0.01028	0.00136	0.00154	5.07	6.68		
45-74, MULTIVARIATE	0.00626	0.00739	0.00146	0.00173	4.28	4.27		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.12 FOR MEN, 3.55 FOR WOMEN.

TABLE 13-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
065-099	1184	7	59	56.4	954	14	147	114.1	418	14	335	255.9	137	108.6	104.5
100-104	864	3	35	53.2	594	6	101	114.9	244	4	164	236.7	76	104.3	101.3
105-109	1292	6	46	50.2	884	6	68	115.8	350	9	257	218.8	83	100.1	98.1
110-114	1532	8	52	47.4	1246	25	201	116.6	424	8	189	202.2	128	96.1	95.0
115-119	1784	9	50	44.7	1442	14	97	117.5	520	9	173	186.9	85	92.2	92.1
120-124	1918	10	52	42.2	1512	16	106	118.4	506	7	138	172.6	84	88.5	89.2
125-129	1568	3	19	39.8	1202	9	75	119.3	428	6	140	159.4	56	85.0	86.4
130-134	1320	5	38	37.5	1016	8	79	120.2	400	5	125	147.2	66	81.6	83.7
135-139	792	5	63	35.4	610	6	98	121.1	198	4	202	135.9	94	78.3	81.0
140-272	1706	5	29	33.4	1048	20	191	122.0	342	6	175	125.5	100	75.2	78.5
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
065-099	2076	3	14	8.7	1092	9	82	46.6	516	8	155	109.8	54	34.0	36.8
100-104	1550	3	19	9.5	870	4	46	45.3	342	5	146	111.9	43	34.9	37.4
105-109	1974	2	10	10.3	1296	4	31	44.0	380	3	79	114.0	25	35.9	37.9
110-114	2058	1	5	11.1	1364	4	29	42.8	514	4	78	116.2	23	36.9	38.4
115-119	1942	0	0	12.0	1502	4	27	41.6	564	6	106	118.4	25	38.0	38.9
120-124	1688	0	0	13.0	1516	5	33	40.4	528	4	76	120.7	24	39.1	39.5
125-129	1384	2	14	14.1	1250	3	24	39.3	490	4	82	123.0	29	40.2	40.0
130-134	1058	3	28	15.3	1034	2	19	38.2	382	7	183	125.3	49	41.3	40.6
135-139	876	3	34	16.6	836	6	72	37.1	376	7	186	127.7	77	42.5	41.1
140-272	2838	7	25	17.9	2986	14	47	36.0	1286	18	140	130.1	55	43.7	41.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.01175	0.01598	0.00822	0.00695	-1.43	2.30	-3.32718	-7.90455
55-64	0.00152	-0.00573	0.00592	0.00644	0.26	-0.89	-3.90560	-4.10783
65-74	-0.01645	0.00386	0.00759	0.00521	-2.17	0.74	-1.31638	-4.17299
AVERAGE	-0.00685	0.00411	0.00406	0.00350	-1.69	1.17		
STANDARDIZED	-0.10464	0.09471	0.06380	0.07905	-1.64	1.20		
45-74, UNIVARIATE	-0.00834	0.00567	0.00404	0.00342	-2.06	1.66	-2.99450	-5.53817
45-74, BIVARIATE	-0.00651	0.00277	0.00405	0.00357	-1.61	0.78		
45-74, MULTIVARIATE	-0.01260	-0.00007	0.00430	0.00369	-2.93	-0.02		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

INTERCEPT OF FUNCTION

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.96 FOR MEN, 5.26 FOR WOMEN.

TABLE 13-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
12-31	156	1	64	77.3	310	12	387	265.7	244	11	451	344.9	338	248.0	187.5
32-35	154	1	65	70.0	342	4	117	221.9	264	5	189	288.5	132	200.7	161.8
36-39	476	8	168	63.4	640	14	219	185.1	420	8	190	240.8	195	162.1	139.5
40-43	806	3	37	57.5	1188	23	194	154.2	602	13	216	200.7	150	130.8	120.3
44-47	1702	5	29	52.1	1748	20	114	128.3	744	18	242	167.0	103	105.4	103.6
48-51	1772	8	45	47.2	1688	12	71	106.7	602	7	116	138.8	66	84.8	89.1
52-55	2634	13	49	42.7	1828	16	88	88.6	462	6	130	115.3	71	68.2	76.7
56-59	2448	10	41	38.7	1366	15	110	73.6	294	2	68	95.6	66	54.8	66.0
60-63	1846	5	27	35.0	812	4	49	61.0	120	0	0	79.3	32	44.0	56.7
64-85	1962	7	36	31.7	558	4	72	50.6	64	1	156	65.7	46	35.3	48.7
UNKNOWN	6	0			30	0			14	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
04-19	90	1	111	78.9	278	5	180	154.7	280	15	536	314.1	324	217.1	154.4
20-23	196	0	0	56.3	406	4	99	109.4	364	9	247	229.7	135	143.2	112.6
24-27	404	2	50	40.1	894	8	89	77.1	682	7	103	167.2	86	94.0	82.0
28-31	988	3	30	28.5	1832	13	71	54.3	1062	6	56	121.2	57	61.5	59.6
32-35	2162	3	14	20.3	2928	11	38	38.1	1278	16	125	87.7	47	40.1	43.2
36-39	2994	6	20	14.4	2888	7	24	26.8	900	11	122	63.3	35	26.1	31.4
40-43	4092	7	17	10.2	2446	4	16	18.8	512	2	39	45.6	18	17.0	22.7
44-47	3236	2	6	7.3	1316	3	23	13.2	220	0	0	32.9	10	11.1	16.5
48-51	2040	0	0	5.2	506	0	0	9.2	62	0	0	23.6	0	7.2	11.9
52-77	1226	0	0	3.7	238	0	0	6.5	18	0	0	17.0	0	4.7	8.6
UNKNOWN	16	0			14	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.02499	-0.08565	0.01389	0.02486	-1.80	-3.44	-3.40485	-2.59151
55-64	-0.04729	-0.08905	0.00959	0.01613	-4.93	-5.52	-1.46148	-1.84107
65-74	-0.04768	-0.08272	0.01344	0.01610	-3.55	-5.14	-1.17219	-1.21361
AVERAGE	-0.04203	-0.08584	0.00681	0.01036	-6.18	-8.29		
STANDARDIZED	-0.37857	-0.63736	0.06130	0.07693	-6.18	-8.28		
45-74, UNIVARIATE	-0.05535	-0.10783	0.00633	0.00934	-8.74	-11.55	-1.29261	-1.15125
45-74, BIVARIATE	-0.03831	-0.08091	0.00690	0.01057	-5.55	-7.65		
45-74, MULTIVARIATE	-0.02846	-0.06695	0.00723	0.01148	-3.94	-5.83		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.98 FOR MEN, 0.08 FOR WOMEN.

TABLE 13-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
37-63	2136	7	33	25.5	2008	20	100	76.8	632	11	174	158.2	80	62.5	62.6
64-67	1352	2	15	29.0	1086	5	46	86.0	414	3	72	166.1	35	68.9	69.0
68-71	1868	7	37	33.1	1412	12	85	96.3	574	9	157	174.3	73	75.9	76.0
72-75	2636	7	27	37.7	1944	16	82	107.9	722	12	166	183.0	66	83.7	83.7
76-79	788	5	63	42.9	510	9	176	120.7	160	2	125	192.1	110	92.2	92.2
80-83	1708	7	41	48.9	1218	12	99	135.1	436	11	252	201.6	89	101.5	101.5
84-87	1004	6	60	55.6	714	13	182	151.1	242	9	372	211.5	143	111.8	111.7
88-91	994	8	80	63.3	602	6	100	168.9	240	5	208	221.9	103	123.0	122.9
92-95	526	3	57	72.0	390	14	359	188.8	156	5	321	232.8	205	135.4	135.2
96-170	950	9	95	82.0	626	17	272	210.9	254	5	197	244.2	169	149.0	148.7
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
37-63	1736	0	0	8.5	1660	3	18	28.7	562	2	36	98.1	13	28.0	29.6
64-67	1552	2	13	9.5	1062	3	28	31.0	378	4	106	103.0	30	30.3	31.7
68-71	2274	4	18	10.5	1728	3	17	33.4	670	12	179	108.2	41	32.8	33.9
72-75	3472	2	6	11.7	2632	12	46	36.0	854	9	105	113.7	33	35.4	36.2
76-79	978	1	10	13.0	826	5	61	38.9	256	3	117	119.5	44	38.3	38.7
80-83	2314	4	17	14.5	1818	8	44	41.9	860	12	140	125.5	48	41.5	41.4
84-87	1560	5	32	16.1	1098	8	73	45.2	492	4	81	131.8	54	44.8	44.2
88-91	1260	1	8	17.9	1034	5	48	48.8	436	9	206	138.4	55	48.5	47.3
92-95	782	2	26	19.9	648	3	46	52.6	276	2	72	145.4	41	52.4	50.5
96-170	1516	3	20	22.1	1240	5	40	56.8	594	9	152	152.7	51	56.7	54.0
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.03276	0.02647	0.00920	0.01480	3.56	1.79	-7.30521	-8.01228
55-64	0.02882	0.01911	0.00604	0.00929	4.77	2.06	-5.94748	-6.33955
65-74	0.01257	0.01261	0.00856	0.00912	1.47	1.38	-4.20036	-4.69325
AVERAGE	0.02551	0.01753	0.00435	0.00596	5.87	2.94		
STANDARDIZED	0.33026	0.22599	0.05611	0.07639	5.89	2.96		
45-74, UNIVARIATE	0.02461	0.01975	0.00442	0.00596	5.57	3.31	-5.89503	-6.40375
45-74, BIVARIATE	0.02460	0.01681	0.00433	0.00597	5.69	2.82		
45-74, MULTIVARIATE	0.01701	0.00989	0.00453	0.00641	3.76	1.54		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.21 FOR MEN, 0.69 FOR WOMEN.

TABLE 13-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NONE	5304	14	26	31.5	5080	47	93	101.5	2264	34	150	149.9	75	81.8	69.4
UNDER 20	1980	8	40	38.9	1670	23	138	115.1	712	16	225	195.5	108	88.7	85.1
20	3204	23	72	48.1	2058	33	160	130.3	486	8	165	254.2	111	96.3	104.4
OVER 20	3396	15	44	59.4	1652	19	115	147.6	358	14	391	329.4	89	104.5	127.8
UNKNOWN	78	1			50	2			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NONE	9808	7	7	6.8	9708	38	39	39.0	4300	51	119	120.2	40	39.2	33.5
UNDER 20	4084	5	12	12.6	2350	8	34	41.5	712	9	126	124.3	31	38.8	42.5
20	2456	5	20	23.4	1126	8	71	44.3	252	5	198	128.6	47	38.5	54.0
OVER 20	1028	5	49	43.3	514	1	19	47.2	92	0	0	133.0	37	38.2	68.6
UNKNOWN	68	2			48	0			22	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.21275	0.62056	0.10743	0.19183	1.98	3.23	-5.05995	-6.60128
55-64	0.12778	0.06417	0.07741	0.16239	1.65	0.40	-3.87623	-4.84657
65-74	0.27497	0.03448	0.10618	0.19401	2.59	0.18	-3.47682	-3.70370
AVERAGE	0.18744	0.22051	0.05406	0.10445	3.47	2.11		
STANDARDIZED	0.21239	0.14407	0.06054	0.07950	3.51	1.81		
45-74, UNIVARIATE	0.08351	-0.00834	0.05261	0.09925	1.59	-0.08	-4.09700	-4.84186
45-74, BIVARIATE	0.20843	0.24194	0.05454	0.09976	3.82	2.43		
45-74, MULTIVARIATE	0.27458	0.29339	0.05643	0.10128	4.87	2.90		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.33 FOR MEN, 6.20 FOR WOMEN.

TABLE 13-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	7304	21	29	26.4	4748	37	78	72.2	1484	16	108	125.0	55	54.1	58.0
BORDER	4240	17	40	48.3	3400	36	106	121.9	1462	33	226	190.8	94	96.2	96.6
DEFINITE	2418	23	95	88.0	2362	51	216	204.4	884	23	260	289.1	171	169.9	159.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	9858	9	9	7.7	4986	12	24	26.7	1220	3	25	39.1	15	16.4	22.4
BORDER	4956	5	10	15.8	4908	22	45	39.4	2144	23	107	90.7	42	37.7	40.1
DEFINITE	2630	10	38	32.6	3852	21	55	58.0	2014	40	199	207.4	84	86.3	71.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT): REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.60835	0.72515	0.15809	0.24966	3.85	2.90	-5.23924	-6.47656
55-64	0.53394	0.39010	0.11266	0.17173	4.74	2.27	-4.22329	-5.22570
65-74	0.43619	0.85107	0.15496	0.19894	2.81	4.28	-3.66335	-4.84220
AVERAGE	0.52712	0.61640	0.07895	0.11530	6.68	5.35		
STANDARDIZED	0.40963	0.47956	0.06133	0.08896	6.68	5.39		
45-74, UNIVARIATE	0.58403	0.83750	0.07815	0.10931	7.47	7.66	-4.51553	-5.71660
45-74, BIVARIATE	0.51915	0.58464	0.07935	0.11476	6.54	5.09		
45-74, MULTIVARIATE	0.26518	0.33723	0.08589	0.12188	3.09	2.77		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.61 FOR MEN, 3.32 FOR WOMEN.

TABLE 13-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	11736	33	28	27.4	7898	61	77	75.8	2436	29	119	121.1	56	55.5	61.4
POSSIBLE	1084	6	55	72.0	1168	16	137	156.6	564	13	230	212.5	124	128.0	125.6
DEFINITE	1130	22	195	186.7	1442	47	326	318.0	830	30	361	367.6	291	289.5	253.0
UNKNOWN	12	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	14102	10	7	6.6	8640	12	14	15.4	2484	17	68	65.5	15	15.9	21.0
POSSIBLE	1600	2	13	20.8	2230	12	54	41.9	992	10	101	115.3	50	45.3	47.4
DEFINITE	1736	12	69	65.3	2868	31	108	112.7	1902	39	205	201.3	126	127.7	106.5
UNKNOWN	6	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.97670	1.15036	0.14144	0.22163	6.91	5.19	-5.20297	-6.62613
55-64	0.74229	1.00426	0.10013	0.16076	7.41	6.25	-4.17402	-5.77797
65-74	0.58092	0.57490	0.13239	0.14724	4.39	3.90	-3.69579	-4.32126
AVERAGE	0.75443	0.84424	0.06954	0.09751	10.85	8.66		
STANDARDIZED	0.53484	0.68720	0.04854	0.07759	11.02	8.86		
45-74, UNIVARIATE	0.85012	1.05338	0.06890	0.09573	12.34	11.00	-4.48969	-5.74840
45-74, BIVARIATE	0.72997	0.82160	0.07104	0.10071	10.27	8.16		
45-74, MULTIVARIATE	0.57567	0.62185	0.07892	0.10964	7.29	5.67		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.20 FOR MEN, 6.25 FOR WOMEN.

TABLE 13-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	13470	46	34	33.8	9758	86	88	89.2	3510	48	137	138.2	67	67.8	71.6
POSSIBLE	278	3	108	139.6	408	13	319	269.1	130	6	462	383.0	270	235.5	221.1
DEFINITE	214	12	561	540.2	344	25	727	756.1	190	18	947	974.3	735	753.9	636.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	17126	20	12	11.3	12966	39	30	30.7	4896	42	86	86.8	29	29.2	32.3
POSSIBLE	204	0	0	59.2	444	6	135	100.7	236	7	297	256.5	147	119.5	104.7
DEFINITE	114	4	351	297.9	336	10	298	320.4	246	17	691	710.3	445	462.9	328.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	1.43914	1.66438	0.16906	0.29429	8.51	5.66	-4.98926	-6.08789
55-64	1.14182	1.20316	0.11667	0.17269	9.79	6.97	-4.00867	-5.08781
65-74	1.07081	1.11918	0.14671	0.14861	7.30	7.53	-3.56041	-4.03664
AVERAGE	1.18767	1.22002	0.08034	0.10520	14.78	11.60		
STANDARDIZED	0.44268	0.40734	0.02984	0.03538	14.84	11.51		
45-74, UNIVARIATE	1.27895	1.42705	0.07987	0.10329	16.01	13.82	-4.28637	-5.13665
45-74, BIVARIATE	1.16354	1.19221	0.08159	0.10670	14.26	11.17		
45-74, MULTIVARIATE	1.12241	0.99751	0.09275	0.12416	12.10	8.03		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.00 FOR MEN, 2.75 FOR WOMEN.

TABLE 13-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	13756	54	39	39.3	10218	108	106	105.7	3618	66	182	182.4	83	82.6	85.1
YES	206	7	340	339.8	292	16	548	547.9	212	6	283	283.0	408	408.5	313.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	17330	23	13	13.3	13466	50	37	37.1	5274	63	119	119.5	38	37.7	38.3
YES	114	1	88	87.7	280	5	179	178.6	104	3	288	288.5	181	180.7	136.7
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	2.22078	1.90354	0.41466	1.03027	5.36	1.85	-4.83922	-5.92889
55-64	1.74032	1.59946	0.28223	0.47703	6.17	3.35	-3.83526	-4.89530
65-74	0.46030	0.91687	0.43862	0.60828	1.05	1.51	-3.27371	-3.71008
AVERAGE	1.57659	1.40562	0.20598	0.35269	7.65	3.99		
STANDARDIZED	0.25984	0.17726	0.03221	0.04438	8.07	3.99		
45-74, UNIVARIATE	1.66652	1.59643	0.20496	0.35027	8.13	4.56	-4.08612	-4.87985
45-74, BIVARIATE	1.36037	1.29374	0.20942	0.35460	6.50	3.65		
45-74, MULTIVARIATE	1.43255	1.43907	0.21994	0.36337	6.51	3.96		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 9.23 FOR MEN, 1.04 FOR WOMEN.

TABLE 13-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	13270	56	42	42.2	9728	103	106	105.9	3400	60	176	176.5	83	83.0	85.4
YES	692	5	72	72.3	782	21	269	268.5	430	12	279	279.1	200	199.6	165.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	16796	20	12	11.9	12826	48	37	37.4	4800	52	108	108.3	35	34.9	36.9
YES	648	4	62	61.7	920	7	76	76.1	578	14	242	242.2	116	116.5	84.2
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.54384	1.65561	0.47004	0.55068	1.16	3.01	-4.76629	-6.03763
55-64	0.96450	0.71739	0.24544	0.40750	3.93	1.76	-3.83348	-4.88737
65-74	0.47981	0.83236	0.32486	0.30777	1.48	2.70	-3.30811	-3.81007
AVERAGE	0.75221	0.93411	0.18077	0.22430	4.16	4.16		
STANDARDIZED	0.20075	0.24955	0.04811	0.05787	4.17	4.31		
45-74, UNIVARIATE	0.90185	1.22305	0.17903	0.22214	5.04	5.51	-4.08209	-4.95882
45-74, BIVARIATE	0.68342	0.83551	0.18161	0.22632	3.76	3.69		
45-74, MULTIVARIATE	0.49364	0.62271	0.18546	0.23240	2.66	2.68		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.65 FOR MEN, 2.11 FOR WOMEN.

TABLE 13-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	13700	56	41	40.9	10108	113	112	111.8	3632	64	176	176.2	85	84.9	86.6
YES	220	5	227	227.3	370	10	270	270.3	190	8	421	421.1	295	294.9	235.4
UNKNOWN	42	0			32	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	16848	22	13	13.1	13312	50	38	37.6	5196	61	117	117.4	38	37.6	37.4
YES	554	2	36	36.1	394	5	127	126.9	166	5	301	301.2	108	107.7	114.2
UNKNOWN	42	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	1.75392	1.02156	0.47700	0.74109	3.68	1.38	-4.79844	-5.94518
55-64	0.91573	1.23565	0.33877	0.47472	2.70	2.60	-3.77794	-4.88371
65-74	0.92316	0.98059	0.39076	0.47917	2.36	2.05	-3.30963	-3.72786
AVERAGE	1.10561	1.09426	0.22555	0.30695	4.90	3.56		
STANDARDIZED	0.19627	0.18744	0.03844	0.05248	5.11	3.57		
45-74, UNIVARIATE	1.28858	1.06630	0.22488	0.30454	5.73	3.50	-4.05844	-4.88218
45-74, BIVARIATE	1.03677	1.13323	0.22770	0.30781	4.55	3.68		
45-74, MULTIVARIATE	0.60331	0.18056	0.24720	0.35345	2.44	0.51		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.38 FOR MEN, 0.15 FOR WOMEN.

TABLE 13-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	13586	60	44	44.2	10122	114	113	112.6	3660	64	175	174.9	87	87.0	87.7
YES	338	1	30	29.6	356	9	253	252.8	162	8	494	493.8	210	210.3	185.3
UNKNOWN	38	0			32	1			8	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	17210	21	12	12.2	13456	49	36	36.4	5254	60	114	114.2	36	36.2	36.8
YES	194	3	155	154.6	254	6	236	236.2	108	6	556	555.6	270	269.8	233.4
UNKNOWN	40	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.40353	2.56845	1.01132	0.62587	-0.40	4.10	-4.72043	-6.01313
55-64	0.83766	1.91087	0.35497	0.44214	2.36	4.32	-3.77034	-4.91490
65-74	1.10657	1.67671	0.39356	0.45228	2.81	3.71	-3.31759	-3.75615
AVERAGE	0.87166	1.95340	0.25507	0.28220	3.42	6.92		
STANDARDIZED	0.15742	0.25415	0.04756	0.03626	3.31	7.01		
45-74, UNIVARIATE	0.90838	2.05700	0.24954	0.27967	3.64	7.36	-4.03417	-4.92110
45-74, BIVARIATE	0.77185	1.89262	0.25167	0.28517	3.07	6.64		
45-74, MULTIVARIATE	0.60132	1.45271	0.26884	0.30768	2.24	4.72		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.96 FOR MEN, 1.35 FOR WOMEN.

TABLE 13-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	13544	57	42	42.1	9934	110	111	110.7	3544	62	175	174.9	85	84.7	86.6
YES	418	4	96	95.7	576	14	243	243.1	286	10	350	349.7	219	218.7	179.9
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	17104	20	12	11.7	13192	48	36	36.4	4996	49	98	98.1	33	33.2	35.4
YES	340	4	118	117.6	554	7	126	126.4	382	17	445	445.0	219	219.4	157.5
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.83233	2.33015	0.52208	0.55330	1.59	4.21	-4.76905	-6.05585
55-64	0.81363	1.26320	0.29047	0.40933	2.80	3.09	-3.78770	-4.91571
65-74	0.72935	1.58577	0.35247	0.29221	2.07	5.43	-3.31711	-3.91161
AVERAGE	0.78776	1.60994	0.20598	0.21850	3.82	7.37		
STANDARDIZED	0.17521	0.32962	0.04605	0.04461	3.80	7.39		
45-74, UNIVARIATE	0.97592	1.92818	0.20443	0.21438	4.77	8.99	-4.06044	-5.00944
45-74, BIVARIATE	0.75418	1.51951	0.20677	0.21933	3.65	6.93		
45-74, MULTIVARIATE	0.60251	1.09551	0.21536	0.23648	2.80	4.63		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.04 FOR MEN, 2.42 FOR WOMEN.

TABLE 13-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: DEATH FROM CARDIOVASCULAR DISEASE
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS ALIVE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13962	61	44		10510	124	118		3830	72	188		91		
NO	13148	56	43	42.6	9626	104	108	108.0	3408	58	170	170.2	83	83.3	85.2
YES	814	5	61	61.4	884	20	226	226.2	422	14	332	331.8	184	184.0	159.6
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	17444	24	14		13746	55	40		5378	66	123		40		
NO	16864	19	11	11.3	12866	46	36	35.8	4824	47	97	97.4	32	32.4	34.8
YES	580	5	86	86.2	880	9	102	102.3	554	19	343	343.0	164	163.9	122.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.36996	2.05004	0.46957	0.50622	0.79	4.05	-4.75697	-6.09309
55-64	0.76357	1.06450	0.24939	0.36787	3.06	2.89	-3.81284	-4.93338
65-74	0.70151	1.30986	0.30717	0.27966	2.28	4.68	-3.34566	-3.91839
AVERAGE	0.68530	1.35452	0.17900	0.20379	3.83	6.65		
STANDARDIZED	0.18814	0.34421	0.05004	0.05110	3.76	6.74		
45-74, UNIVARIATE	0.81342	1.64723	0.17688	0.20079	4.60	8.20	-4.07839	-5.03213
45-74, BIVARIATE	0.64508	1.27446	0.17866	0.20515	3.61	6.21		
45-74, MULTIVARIATE	0.48674	0.96334	0.18671	0.21754	2.61	4.43		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.55 FOR MEN, 2.53 FOR WOMEN.

TABLE 14-1

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, SYSTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
074-109	802	5	62	66.4	502	7	139	121.6	132	1	76	184.7	91	92.9	103.4
110-119	2252	18	80	81.4	1126	15	133	147.6	274	8	292	207.2	112	113.8	123.5
120-129	2888	25	87	99.8	1690	28	166	179.0	394	9	228	232.4	125	139.3	147.3
130-139	2890	32	111	122.2	1702	35	206	216.8	542	8	148	260.5	146	170.4	175.6
140-149	1888	31	164	149.4	1330	33	248	262.2	480	17	354	291.7	219	208.0	209.1
150-159	1120	23	205	182.5	916	33	360	316.4	386	12	311	326.5	281	253.6	248.5
160-169	600	14	233	222.6	586	24	410	380.9	250	8	320	365.0	320	308.5	294.9
170-179	298	8	268	271.0	420	16	381	457.3	150	9	600	407.7	380	374.3	349.2
180-189	210	4	190	329.2	236	12	508	547.2	92	3	326	454.9	353	452.9	412.4
190-300	166	7	422	398.8	354	27	763	652.2	172	11	640	507.0	650	545.9	485.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
074-109	1540	5	32	21.1	494	4	81	54.1	98	0	0	103.8	42	38.9	48.1
110-119	2936	6	20	25.5	1198	4	33	65.6	258	2	78	121.5	27	48.4	57.4
120-129	3364	11	33	30.8	1746	13	74	79.4	368	7	190	142.1	57	60.1	68.5
130-139	3350	9	27	37.3	2168	18	83	96.1	630	8	127	166.2	57	74.8	81.7
140-149	2056	9	44	45.0	1814	18	99	116.3	708	19	268	194.1	100	92.9	97.5
150-159	1450	10	69	54.4	1660	25	151	140.5	684	18	263	226.5	140	115.3	116.1
160-169	850	5	59	65.6	1190	19	160	169.6	516	8	155	264.1	125	143.0	138.2
170-179	526	3	57	79.2	830	26	313	204.5	432	7	162	307.4	201	177.0	164.4
180-189	384	5	130	95.5	590	12	203	246.1	270	10	370	357.4	217	218.8	195.3
190-300	410	6	146	115.1	796	29	364	295.8	418	25	598	414.7	369	269.9	231.7
UNKNOWN	0	0			0	0			0	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.02069	0.01907	0.00339	0.00362	6.10	5.27	-6.48033	-7.46603
55-64	0.01994	0.01942	0.00239	0.00242	8.33	8.04	-5.78616	-6.55392
65-74	0.01199	0.01612	0.00391	0.00346	3.07	4.65	-4.51984	-5.54667
AVERAGE	0.01855	0.01851	0.00175	0.00174	10.61	10.65		
STANDARDIZED	0.41895	0.47020	0.03928	0.04417	10.66	10.65		
45-74, UNIVARIATE	0.02076	0.02207	0.00171	0.00162	12.12	13.65	-6.14669	-7.16659
45-74, BIVARIATE	0.01824	0.01795	0.00176	0.00176	10.38	10.18		
45-74, MULTIVARIATE	0.01537	0.01383	0.00194	0.00198	7.94	7.00		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 3.55 FOR MEN, 0.64 FOR WOMEN.

TABLE 14-2

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: BLOOD PRESSURE, FIRST EXAMINER, DIASTOLIC (MM HG)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
020-069	770	10	130	70.8	674	13	193	148.2	322	7	217	237.0	170	117.8	116.7
070-074	1644	13	79	82.4	1230	25	203	171.2	484	17	351	254.7	164	134.4	133.5
075-079	1328	14	105	95.8	936	18	192	197.6	290	7	241	273.6	153	153.3	152.6
080-084	3274	29	89	111.3	2030	35	172	227.8	664	14	211	293.8	131	174.7	174.4
085-089	1752	17	97	129.3	970	14	144	262.4	310	5	161	315.5	119	199.0	199.1
090-094	1848	25	135	150.1	1264	49	388	301.9	372	14	376	338.6	253	226.6	227.1
095-099	870	20	230	174.1	544	17	313	346.9	126	4	317	363.2	266	257.7	258.7
100-104	904	17	188	201.8	600	26	433	398.1	150	10	667	389.6	320	292.9	294.4
105-109	278	7	252	233.7	164	5	305	456.1	28	1	357	417.6	277	332.5	334.6
110-160	446	15	336	270.4	450	28	622	521.6	126	7	556	447.5	489	377.1	379.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
020-069	1544	6	39	22.6	808	8	99	71.0	366	5	137	151.5	70	54.6	57.4
070-074	2694	5	19	26.5	1584	15	95	82.8	532	11	207	170.3	64	63.9	66.5
075-079	1910	5	26	31.2	1178	18	153	96.6	396	5	126	191.3	80	74.9	77.1
080-084	3988	13	33	36.6	2746	23	84	112.6	1032	15	145	214.8	66	87.7	89.2
085-089	2018	7	35	43.0	1544	16	104	131.3	466	12	258	241.1	87	102.6	103.2
090-094	2158	12	56	50.5	1954	28	143	152.9	706	30	425	270.3	145	120.0	119.3
095-099	814	5	61	59.3	794	12	151	177.9	298	8	268	302.9	131	140.3	137.9
100-104	820	5	61	69.6	946	13	137	206.8	320	4	125	339.1	105	163.8	159.2
105-109	260	2	77	81.7	272	9	331	240.3	64	3	469	379.3	235	191.2	183.7
110-160	660	9	136	95.8	660	26	394	278.8	202	11	545	423.9	302	223.0	211.8
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.03069	0.03245	0.00613	0.00793	5.01	4.09	-6.31468	-7.58568
55-64	0.02973	0.03136	0.00479	0.00539	6.20	5.82	-5.49523	-6.35780
65-74	0.01513	0.02414	0.00789	0.00737	1.92	3.28	-4.02206	-5.09541
AVERAGE	0.02731	0.02968	0.00341	0.00381	8.02	7.78		
STANDARDIZED	0.34161	0.37791	0.04239	0.04855	8.06	7.78		
45-74, UNIVARIATE	0.02707	0.03204	0.00346	0.00370	7.83	8.66	-5.55187	-6.66937
45-74, BIVARIATE	0.02774	0.02984	0.00339	0.00384	8.19	7.77		
45-74, MULTIVARIATE	0.02397	0.02211	0.00362	0.00414	6.62	5.33		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.94 FOR MEN, 0.78 FOR WOMEN.

TABLE 14-3

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: SERUM CHOLESTEROL (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
096-189	1502	9	60	81.8	1078	15	139	194.1	382	9	236	296.6	111	146.7	144.0
190-204	1306	12	92	91.5	936	16	171	209.3	366	12	328	298.1	153	158.3	156.2
205-219	1912	15	78	102.5	1126	31	275	225.7	368	19	516	299.6	191	170.8	169.3
220-234	1928	31	161	114.6	1384	36	260	243.4	454	13	286	301.1	212	184.3	183.5
235-249	1636	21	128	128.2	1228	39	318	262.3	336	5	149	302.6	203	198.8	198.8
250-264	1434	16	112	143.4	1094	19	174	282.6	312	7	224	304.1	148	214.4	215.3
265-279	1032	18	174	160.3	710	26	366	304.3	242	5	207	305.6	247	231.1	233.1
280-294	696	11	158	179.1	464	16	345	327.7	214	10	467	307.1	269	249.1	252.3
295-309	412	8	194	200.1	290	14	483	352.6	80	3	375	308.6	320	268.4	273.0
310-1124	582	18	309	223.3	316	9	285	379.4	98	3	306	310.1	301	289.1	295.2
UNKNOWN	674	8			236	9			20	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
096-189	1644	5	30	22.5	516	9	174	85.5	138	3	217	152.1	74	53.8	65.1
190-204	1608	3	19	25.4	660	4	61	92.7	166	3	181	164.2	41	60.7	71.0
205-219	1956	9	46	28.7	978	9	92	100.4	334	7	210	177.3	76	68.5	77.4
220-234	2336	6	26	32.3	1502	17	113	108.8	472	12	254	191.3	81	77.2	84.4
235-249	2098	7	33	36.5	1492	14	94	117.9	570	11	193	206.5	77	87.1	92.0
250-264	1758	6	34	41.1	1618	15	93	127.8	608	7	115	222.8	70	98.2	100.3
265-279	1486	4	27	46.3	1536	22	143	138.4	600	16	267	240.3	116	110.7	109.3
280-294	1096	5	46	52.2	1238	20	162	149.9	440	8	182	259.1	119	124.7	119.1
295-309	720	7	97	58.9	910	16	176	162.3	332	13	392	279.3	183	140.4	129.8
310-1124	1244	10	80	66.3	1614	35	217	175.7	668	22	329	301.0	190	158.1	141.4
UNKNOWN	920	7			422	7			54	2					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00766	0.00806	0.00155	0.00248	4.93	3.26	-5.49450	-6.86864
55-64	0.00526	0.00548	0.00162	0.00165	3.24	3.33	-4.16832	-5.05118
65-74	0.00035	0.00529	0.00274	0.00222	0.13	2.38	-2.82792	-4.42714
AVERAGE	0.00562	0.00600	0.00104	0.00117	5.42	5.14		
STANDARDIZED	0.23027	0.27013	0.04285	0.05252	5.37	5.14		
45-74, UNIVARIATE	0.00525	0.00815	0.00104	0.00110	5.03	7.40	-4.45680	-6.00843
45-74, BIVARIATE	0.00560	0.00588	0.00106	0.00117	5.30	5.01		
45-74, MULTIVARIATE	0.00514	0.00534	0.00107	0.00117	4.81	4.56		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 5.48 FOR MEN, 0.90 FOR WOMEN.

TABLE 14-4

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: PHOSPHOLIPID (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
062-179	1744	16	92	88.3	1104	11	100	214.4	136	3	221	227.7	101	148.0	151.9
180-199	822	7	85	95.8	540	16	296	223.9	68	0	0	241.5	161	157.6	160.9
200-219	1034	11	106	104.0	704	23	327	233.8	220	5	227	256.1	199	167.8	170.3
220-239	1312	12	91	112.8	910	31	341	244.1	268	13	485	271.5	225	178.7	180.3
240-259	1762	26	148	122.3	1324	33	249	254.9	582	19	326	287.8	213	190.2	190.9
260-279	1774	19	107	132.7	1372	34	248	266.0	538	13	242	304.9	179	202.5	202.0
280-299	1512	24	159	143.9	1108	28	253	277.7	434	11	253	323.1	206	215.5	213.8
300-319	1040	10	96	155.9	786	21	267	289.8	340	10	294	342.2	189	229.3	226.1
320-339	760	12	158	169.0	370	12	324	302.5	188	8	426	362.4	243	243.9	239.2
340-968	622	19	305	183.1	384	12	313	315.6	76	4	526	383.6	323	259.4	253.0
UNKNOWN	732	11			260	9			22	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
062-179	2060	6	29	32.0	1024	8	78	88.5	88	2	227	161.0	50	56.9	75.2
180-199	854	5	59	33.4	584	4	68	95.8	56	1	179	171.5	67	63.6	79.8
200-219	1560	5	32	34.9	950	11	116	103.7	176	4	227	182.6	74	71.1	84.7
220-239	1608	7	44	36.4	958	12	125	112.2	226	4	177	194.4	82	79.4	89.9
240-259	2126	6	28	38.0	1302	19	146	121.5	450	6	133	206.9	80	88.8	95.3
260-279	2234	8	36	39.6	1702	23	135	131.4	696	17	244	220.2	104	99.2	101.2
280-299	1850	6	32	41.4	1684	15	89	142.1	716	17	237	234.4	89	110.8	107.3
300-319	1590	6	38	43.2	1578	28	177	153.7	846	20	236	249.3	135	123.7	113.8
320-339	982	5	51	45.1	1048	19	181	166.2	518	16	309	265.2	157	138.1	120.8
340-968	982	7	71	47.0	1194	22	184	179.7	542	15	277	282.1	162	154.1	128.1
UNKNOWN	1020	8			462	7			68	2					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.00416	0.00215	0.00125	0.00214	3.32	1.01	-4.72567	-5.41075
55-64	0.00227	0.00404	0.00117	0.00139	1.94	2.91	-3.49080	-4.70237
65-74	0.00308	0.00326	0.00248	0.00216	1.24	1.51	-3.56616	-3.95658
AVERAGE	0.00314	0.00343	0.00081	0.00103	3.89	3.35		
STANDARDIZED	0.17942	0.19189	0.04685	0.05774	3.83	3.32		
45-74, UNIVARIATE	0.00325	0.00565	0.00078	0.00098	4.14	5.76	-4.04189	-5.42485
45-74, BIVARIATE	0.00297	0.00303	0.00082	0.00104	3.64	2.92		
45-74, MULTIVARIATE	0.00048	0.00070	0.00098	0.00121	0.49	0.58		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.22 FOR MEN, 0.55 FOR WOMEN.

TABLE 14-5

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: BLOOD GLUCOSE (MG/DL)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
029-059	368	7	190	103.4	256	12	469	233.1	62	1	161	252.6	292	163.6	167.7
060-069	2356	26	110	111.2	1364	28	205	241.7	492	18	366	266.7	171	173.6	176.7
070-079	4238	55	130	119.5	2708	63	233	250.6	834	24	288	281.6	183	184.3	186.1
080-089	3066	27	88	128.5	2182	55	252	259.8	650	13	200	297.2	161	195.6	195.9
090-099	1432	22	154	138.1	1074	32	298	269.3	426	15	352	313.6	235	207.5	206.3
100-109	572	6	105	148.5	456	15	329	279.2	138	3	217	330.8	206	220.2	217.2
110-119	268	5	187	159.5	238	7	294	289.4	58	2	345	348.9	248	233.5	228.6
120-129	112	3	268	171.4	132	3	227	300.0	54	4	741	368.0	336	247.7	240.6
130-139	68	2	294	184.2	66	2	303	310.9	44	0	0	388.0	225	262.6	253.1
140-524	212	9	425	197.8	214	9	421	322.1	88	6	682	409.0	467	278.4	266.3
UNKNOWN	422	5			172	4			26	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
029-059	340	1	29	22.4	264	2	76	102.0	64	1	156	177.4	60	69.7	73.7
060-069	2876	8	28	26.5	1616	31	192	110.7	504	12	238	193.1	102	78.0	81.2
070-079	5648	18	32	31.4	3838	37	96	120.0	1372	27	197	210.0	76	87.2	89.4
080-089	4262	19	45	37.2	3468	44	127	130.1	1168	25	214	228.3	99	97.5	98.5
090-099	1774	6	34	44.0	1520	18	118	141.0	588	19	323	248.2	111	109.0	108.4
100-109	676	1	15	52.1	680	6	88	152.9	302	5	166	269.7	72	121.8	119.3
110-119	332	1	30	61.6	280	9	321	165.7	116	3	259	292.9	179	136.1	131.3
120-129	114	0	0	72.8	210	3	143	179.5	100	4	400	318.0	165	152.0	144.4
130-139	46	1	217	86.1	64	1	156	194.4	36	0	0	345.1	137	169.7	158.8
140-524	160	6	375	101.7	260	11	423	210.5	88	6	682	374.3	453	189.4	174.6
UNKNOWN	638	8			286	6			44	2					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT) MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.00743	0.01698	0.00213	0.00284	3.49	5.97	-4.26647	-6.33747
55-64	0.00380	0.00830	0.00225	0.00190	1.69	4.37	-3.22724	-4.32768
65-74	0.00572	0.00876	0.00270	0.00276	2.12	3.18	-3.24819	-3.78407
AVERAGE	0.00572	0.01042	0.00134	0.00137	4.26	7.61		
STANDARDIZED	0.14056	0.23743	0.03275	0.03007	4.29	7.90		
45-74, UNIVARIATE	0.00618	0.01138	0.00133	0.00133	4.66	8.56	-3.72663	-4.88435
45-74, BIVARIATE	0.00541	0.00985	0.00136	0.00140	3.98	7.04		
45-74, MULTIVARIATE	0.00459	0.00665	0.00142	0.00153	3.23	4.34		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.36 FOR MEN, 6.94 FOR WOMEN.

TABLE 14-6

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: METROPOLITAN RELATIVE WEIGHT (PERCENT)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
065-099	1164	8	69	97.9	796	22	276	221.0	286	10	350	277.1	178	164.9	161.8
100-104	804	6	75	103.3	502	14	279	228.7	172	3	174	282.0	156	170.7	168.2
105-109	1196	16	134	108.9	730	14	192	236.7	264	9	341	286.9	178	176.7	174.8
110-114	1412	17	120	114.9	1046	25	239	245.0	330	6	182	292.0	172	183.0	181.7
115-119	1652	18	109	121.2	1236	28	227	253.5	408	17	417	297.1	191	189.4	188.8
120-124	1818	29	160	127.9	1266	27	213	262.3	398	13	327	302.3	198	196.1	196.2
125-129	1488	17	114	134.8	1002	26	259	271.4	302	6	199	307.6	176	203.0	203.8
130-134	1268	22	174	142.2	890	26	292	280.8	284	6	211	312.9	221	210.1	211.7
135-139	742	8	108	149.9	526	16	304	290.5	172	5	291	318.4	201	217.5	220.0
140-272	1568	26	166	158.1	866	32	370	300.5	256	11	430	323.9	257	225.1	228.5
UNKNOWN	2	0			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
065-099	1984	7	35	24.9	978	12	123	100.4	412	11	267	237.8	89	74.1	78.5
100-104	1460	5	34	27.2	774	7	90	105.4	286	7	245	237.7	75	78.2	82.1
105-109	1922	2	10	29.6	1190	19	160	110.6	330	10	303	237.7	90	82.6	85.9
110-114	2008	6	30	32.3	1238	9	73	116.1	410	8	195	237.6	63	87.2	89.9
115-119	1924	10	52	35.3	1414	10	71	121.8	482	5	104	237.5	65	92.1	94.0
120-124	1652	7	42	38.5	1402	16	114	127.9	460	9	196	237.4	91	97.2	98.4
125-129	1360	3	22	41.9	1158	13	112	134.2	406	17	419	237.3	113	102.7	102.9
130-134	1034	3	29	45.7	928	15	162	140.8	294	6	204	237.2	106	108.4	107.6
135-139	838	4	48	49.9	722	18	249	147.7	300	6	200	237.1	151	114.4	112.5
140-272	2684	22	82	54.4	2682	49	183	155.0	1002	25	250	237.0	151	120.7	117.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.01093	0.01746	0.00476	0.00407	2.29	4.29	-4.97875	-6.99908
55-64	0.00720	0.00989	0.00437	0.00309	1.65	3.21	-3.77583	-4.85219
65-74	0.00369	-0.00008	0.00696	0.00452	0.53	-0.02	-3.19550	-2.98929
AVERAGE	0.00798	0.00975	0.00292	0.00216	2.73	4.51		
STANDARDIZED	0.12478	0.21617	0.04577	0.04762	2.73	4.54		
45-74, UNIVARIATE	0.00719	0.01106	0.00290	0.00212	2.48	5.22	-4.07968	-5.27558
45-74, BIVARIATE	0.00805	0.00921	0.00292	0.00222	2.76	4.14		
45-74, MULTIVARIATE	0.00406	0.00280	0.00309	0.00245	1.32	1.14		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.79 FOR MEN, 8.32 FOR WOMEN.

TABLE 14-7

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: VITAL CAPACITY-HEIGHT INDEX (ML/INCH)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
12-31	140	3	214	202.0	226	5	221	348.6	180	6	333	421.5	256	340.6	270.1
32-35	142	4	282	186.6	274	10	365	328.5	198	9	455	383.6	375	305.7	253.8
36-39	430	2	47	172.4	494	20	405	309.5	304	8	263	348.9	244	274.2	238.4
40-43	746	14	188	159.2	950	26	274	291.6	480	17	354	317.0	262	245.7	223.9
44-47	1572	21	134	147.0	1474	42	285	274.6	508	19	374	287.9	231	220.1	210.2
48-51	1646	28	170	135.7	1406	32	228	258.5	458	11	240	261.3	202	197.0	197.3
52-55	2446	34	139	125.2	1560	43	276	243.3	374	10	267	237.1	199	176.3	185.2
56-59	2332	29	124	115.6	1184	29	245	229.0	212	4	189	215.0	166	157.6	173.8
60-63	1752	16	91	106.6	750	14	187	215.5	88	0	0	194.9	116	140.9	163.1
64-85	1900	15	79	98.4	518	9	174	202.8	56	1	179	176.6	101	125.9	153.0
UNKNOWN	3	1			26	0			14	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
04-19	68	0	0	153.0	218	7	321	285.3	226	8	354	355.0	293	334.9	214.9
20-23	178	2	112	120.0	330	5	152	239.9	246	9	366	315.8	212	258.3	183.6
24-27	352	5	142	94.0	744	16	215	201.4	490	14	286	280.7	221	198.5	156.8
28-31	908	7	77	73.6	1626	31	191	168.9	876	21	240	249.2	173	152.1	133.7
32-35	2060	6	29	57.5	2716	41	151	141.4	1092	28	256	221.2	128	116.2	114.0
36-39	2902	23	79	44.9	2654	29	109	118.3	754	13	172	196.1	103	88.7	97.1
40-43	3976	13	33	35.1	2250	25	111	98.9	442	8	181	173.8	69	67.6	82.6
44-47	3200	9	28	27.4	1218	9	74	82.7	184	3	163	154.0	46	51.5	70.3
48-51	1988	3	15	21.4	486	4	82	69.0	56	0	0	136.3	28	39.2	59.8
52-77	1216	1	8	16.7	230	1	43	57.6	16	0	0	120.6	14	29.8	50.8
UNKNOWN	18	0			14	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	-0.02058	-0.06235	0.00856	0.01550	-2.40	-4.02	-2.55026	-2.33345
55-64	-0.01591	-0.04575	0.00744	0.01019	-2.14	-4.49	-2.11351	-1.98126
65-74	-0.02562	-0.03135	0.01246	0.01337	-2.06	-2.35	-1.61662	-2.00717
AVERAGE	-0.01922	-0.04516	0.00512	0.00718	-3.75	-6.29		
STANDARDIZED	-0.17297	-0.33166	0.04606	0.05277	-3.76	-6.28		
45-74, UNIVARIATE	-0.02888	-0.06899	0.00482	0.00646	-6.00	-10.68	-1.74952	-1.39233
45-74, BIVARIATE	-0.01659	-0.04111	0.00518	0.00734	-3.20	-5.60		
45-74, MULTIVARIATE	-0.00828	-0.03258	0.00545	0.00789	-1.52	-4.13		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.49 FOR MEN, 2.30 FOR WOMEN.

TABLE 14-8

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: PULSE RATE (PER MINUTE)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
37-63	2080	21	101	111.0	1724	31	180	213.5	468	13	278	268.5	152	167.2	165.9
64-67	1266	15	118	115.3	926	20	216	226.1	354	11	311	277.4	181	174.6	173.6
68-71	1788	22	123	119.8	1228	32	261	239.4	442	9	204	286.5	182	182.3	181.6
72-75	2502	29	116	124.5	1656	42	254	253.5	566	16	283	296.0	184	190.3	190.0
76-79	722	9	125	129.4	420	13	310	268.4	104	3	288	305.7	201	198.7	198.8
80-83	1574	25	159	134.4	998	28	281	284.0	316	12	380	315.7	225	207.4	208.0
84-87	930	10	108	139.7	586	19	324	300.6	180	5	278	326.0	200	216.5	217.6
88-91	906	16	177	145.1	502	13	259	318.0	154	5	325	336.7	218	226.0	227.5
92-95	478	7	146	150.7	296	13	439	336.4	94	4	426	347.6	276	235.9	237.9
96-170	868	13	150	156.6	526	19	361	355.7	194	8	412	358.9	252	246.1	248.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
37-63	1694	5	30	38.8	1454	23	158	127.6	438	10	228	223.5	106	92.7	96.7
64-67	1506	10	66	39.3	954	10	105	129.2	308	2	65	226.6	79	94.6	97.8
68-71	2228	10	45	39.8	1558	18	116	131.0	528	14	265	229.7	97	96.7	98.8
72-75	3358	14	42	40.4	2406	28	116	132.7	690	16	232	232.8	90	98.7	99.9
76-79	934	3	32	40.9	768	9	117	134.4	196	8	408	235.9	105	100.8	101.0
80-83	2224	6	27	41.4	1682	20	119	136.2	706	20	283	239.1	100	103.0	102.1
84-87	1506	7	46	42.0	1002	19	190	138.0	408	9	221	242.4	120	105.1	103.2
88-91	1206	4	33	42.6	930	17	183	139.8	370	9	243	245.7	120	107.4	104.3
92-95	764	3	39	43.1	604	11	182	141.7	236	4	169	249.0	112	109.6	105.5
96-170	1446	7	48	43.7	1128	13	115	143.6	502	12	239	252.4	104	112.0	106.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.00982	0.00334	0.00609	0.00972	1.61	0.34	-4.39442	-5.05879
55-64	0.01502	0.00338	0.00486	0.00602	3.09	0.56	-4.04107	-3.85207
65-74	0.00860	0.00354	0.00811	0.00764	1.06	0.46	-3.40216	-3.28109
AVERAGE	0.01220	0.00342	0.00344	0.00425	3.55	0.80		
STANDARDIZED	0.15608	0.04353	0.04411	0.05413	3.54	0.80		
45-74, UNIVARIATE	0.01120	0.00536	0.00348	0.00425	3.22	1.26	-4.05869	-4.30192
45-74, BIVARIATE	0.01185	0.00279	0.00344	0.00426	3.44	0.65		
45-74, MULTIVARIATE	0.00207	-0.00342	0.00368	0.00454	0.56	-0.75		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.69 FOR MEN, 0.00 FOR WOMEN.

TABLE 14-9

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: CIGARETTES SMOKED (NUMBER PER DAY)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NONE	4950	39	79	84.1	4334	88	203	208.8	1738	51	293	300.6	161	166.5	149.8
UNDER 20	1858	20	108	109.8	1386	36	260	252.6	504	17	337	300.4	195	188.4	183.1
20	3030	52	172	143.0	1722	58	337	305.1	332	10	301	300.2	236	213.1	223.4
OVER 20	3208	54	168	185.9	1386	47	339	367.7	288	8	278	300.0	223	240.8	271.8
UNKNOWN	68	2			34	1			10	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NONE	9476	42	44	41.5	8756	120	137	134.0	3518	80	227	225.8	111	107.3	97.7
UNDER 20	3978	13	33	40.9	2152	25	116	136.4	566	13	230	262.0	76	95.7	103.9
20	2370	8	34	40.3	1040	15	144	138.8	200	8	400	303.8	86	85.4	110.4
OVER 20	976	6	61	39.7	490	8	163	141.3	76	2	263	351.7	104	76.2	117.3
UNKNOWN	66	0			48	0			22	1					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.27146	-0.01452	0.06611	0.13258	4.11	-0.11	-4.06824	-4.78366
55-64	0.19996	0.01839	0.05681	0.09571	3.52	0.19	-3.13337	-3.59255
65-74	-0.00071	0.15665	0.10902	0.14405	-0.01	1.09	-2.74930	-3.05154
AVERAGE	0.19912	0.04075	0.04007	0.06832	4.97	0.60		
STANDARDIZED	0.22293	0.03810	0.04605	0.05294	4.84	0.72		
45-74, UNIVARIATE	0.12827	-0.11623	0.03835	0.06851	3.34	-1.70	-3.36852	-3.82011
45-74, BIVARIATE	0.20944	0.06253	0.03958	0.06895	5.29	0.91		
45-74, MULTIVARIATE	0.25717	0.13422	0.04101	0.07041	6.27	1.91		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 4.56 FOR MEN, 0.88 FOR WOMEN.

TABLE 14-10

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: HYPERTENSION
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	6972	58	83	84.4	4196	65	155	161.2	1162	19	164	170.0	115	119.1	123.9
BORDER	3964	58	146	142.2	2798	82	293	274.1	1098	35	319	305.0	223	210.4	210.8
DEFINITE	2178	51	234	237.9	1868	83	444	458.5	612	32	523	535.2	356	366.7	353.2
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	9598	23	24	24.6	4698	29	62	68.3	1082	9	83	117.9	40	46.3	57.3
BORDER	4788	24	50	47.5	4446	63	142	127.8	1766	44	249	206.6	119	100.7	104.2
DEFINITE	2480	22	89	91.2	3342	76	227	236.7	1534	51	332	357.0	203	216.3	187.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)							
45-54	0.53425	0.66177	0.09680	0.14792	5.52	4.47	-4.06517	-5.30875
55-64	0.55429	0.63868	0.08375	0.10247	6.62	6.23	-3.40158	-4.27948
65-74	0.61271	0.57890	0.14580	0.14387	4.20	4.02	-3.34669	-3.72325
AVERAGE	0.55635	0.62899	0.05809	0.07269	9.58	8.65		
STANDARDIZED	0.42740	0.48515	0.04464	0.05608	9.57	8.65		
45-74, UNIVARIATE	0.58847	0.78879	0.05763	0.07027	10.21	11.23	-3.71348	-4.67375
45-74, BIVARIATE	0.55234	0.60913	0.05818	0.07339	9.49	8.30		
45-74, MULTIVARIATE	0.48223	0.48722	0.06158	0.07741	7.83	6.29		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.20 FOR MEN, 0.18 FOR WOMEN.

TABLE 14-11

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: HEART ENLARGEMENT BY X-RAY
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	11188	128	114	113.2	6878	166	241	239.6	1934	55	284	271.9	175	172.6	179.0
POSSIBLE	944	13	138	166.2	932	25	268	294.1	428	9	210	323.4	204	237.2	225.9
DEFINITE	974	25	257	242.9	1050	39	371	360.0	510	22	431	383.9	339	324.3	284.3
UNKNOWN	8	1			2	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	13778	50	36	35.6	8124	73	90	92.5	2146	46	214	195.3	70	70.1	81.8
POSSIBLE	1512	6	40	52.4	1968	35	178	155.9	834	12	144	241.9	123	125.1	119.3
DEFINITE	1564	13	83	77.0	2386	60	251	260.5	1402	46	328	298.9	222	221.4	173.3
UNKNOWN	12	0			8	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)) MEN	WOMEN	STANDARD ERROR MEN	WOMEN	T-VALUE MEN	WOMEN	INTERCEPT OF FUNCTION MEN	WOMEN
45-54	0.39507	0.38989	0.10992	0.15674	3.59	2.49	-3.76509	-4.93791
55-64	0.21633	0.53506	0.08987	0.08726	2.41	6.13	-2.98912	-3.97118
65-74	0.18453	0.22376	0.13436	0.11203	1.37	2.00	-2.85597	-3.20279
AVERAGE	0.26607	0.41304	0.06178	0.06303	4.31	6.55		
STANDARDIZED	0.17860	0.32275	0.04024	0.04904	4.44	6.58		
45-74, UNIVARIATE	0.33134	0.59089	0.06110	0.06075	5.42	9.73	-3.33115	-4.25353
45-74, BIVARIATE	0.24465	0.38607	0.06258	0.06417	3.91	6.02		
45-74, MULTIVARIATE	0.13202	0.23278	0.06829	0.07027	1.93	3.31		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 2.05 FOR MEN, 4.83 FOR WOMEN.

TABLE 14-12

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: LEFT VENTRICULAR HYPERTROPHY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	12778	153	120	120.5	8386	201	240	237.2	2714	76	280	278.3	180	179.6	182.0
POSSIBLE	222	8	360	276.2	310	11	355	490.0	80	3	375	491.2	359	397.4	370.0
DEFINITE	114	6	526	608.2	166	18	1084	958.1	78	7	897	837.9	866	833.5	717.5
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	16626	65	39	39.1	11986	145	121	121.2	4138	86	208	208.9	90	90.8	93.7
POSSIBLE	180	2	111	114.8	314	10	318	301.9	146	8	548	489.6	313	272.9	234.6
DEFINITE	60	2	333	327.8	186	13	699	712.9	98	10	1020	1063.9	727	763.6	558.6
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	0.86225	1.09336	0.18844	0.33529	4.58	3.26	-3.70142	-4.84386
55-64	0.78013	0.95061	0.13138	0.14403	5.94	6.60	-2.99975	-3.69529
65-74	0.61412	0.91229	0.20982	0.17171	2.93	5.31	-2.83116	-3.13286
AVERAGE	0.76673	0.95029	0.09586	0.10482	8.00	9.07		
STANDARDIZED	0.22278	0.25189	0.02789	0.02837	7.99	8.88		
45-74, UNIVARIATE	0.84038	1.13856	0.09510	0.10299	8.84	11.05	-3.28990	-3.99056
45-74, BIVARIATE	0.75734	0.95273	0.09638	0.10579	7.86	9.01		
45-74, MULTIVARIATE	0.46054	0.56219	0.11080	0.12307	4.16	4.57		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.80 FOR MEN, 0.23 FOR WOMEN.

TABLE 14-13

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: INTRAVENTRICULAR CONDUCTION DEFECT (WITH QRS INTERVAL MORE THAN 0.11 SECOND)
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	12986	162	125	124.7	8684	223	257	256.8	2728	80	293	293.3	191	190.6	192.2
YES	128	5	391	390.6	178	7	393	393.3	144	6	417	416.7	400	400.0	315.3
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	16780	67	40	39.9	12294	160	130	130.1	4320	101	234	233.8	98	98.2	99.0
YES	86	2	233	232.6	192	8	417	416.7	62	3	484	483.9	382	382.4	306.7
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)						INTERCEPT OF FUNCTION	
	REGRESSION COEFFICIENT		STANDARD ERROR		T-VALUE			
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.19752	1.80166	0.47253	0.73446	2.53	2.45	-3.66562	-4.82209
55-64	0.45538	1.22428	0.39972	0.37786	1.14	3.24	-2.91619	-3.62217
65-74	0.37781	0.78126	0.44170	0.61598	0.86	1.27	-2.77571	-3.01485
AVERAGE	0.63985	1.21582	0.25108	0.29497	2.55	4.12		
STANDARDIZED	0.09421	0.13179	0.03354	0.03136	2.81	4.20		
45-74, UNIVARIATE	0.78586	1.41883	0.25024	0.29394	3.14	4.83	-3.22821	-3.91013
45-74, BIVARIATE	0.52679	1.18356	0.25352	0.29811	2.08	3.97		
45-74, MULTIVARIATE	0.52119	1.06974	0.26535	0.32539	1.96	3.29		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.96 FOR MEN, 1.13 FOR WOMEN.

TABLE 14-14

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: DEFINITE NONSPECIFIC T-WAVE OR ST-SEGMENT ABNORMALITY BY ELECTROCARDIOGRAM
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	12554	153	122	121.9	8354	206	247	246.6	2618	71	271	271.2	183	182.8	185.1
YES	560	14	250	250.0	508	24	472	472.4	254	15	591	590.6	401	400.9	359.8
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	16286	63	39	38.7	11750	149	127	126.8	4014	92	229	229.2	95	94.9	97.2
YES	580	6	103	103.4	736	19	258	258.2	368	12	326	326.1	220	219.7	174.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.74509	0.99680	0.28616	0.43149	2.60	2.31	-3.68953	-4.85401
55-64	0.69887	0.73819	0.22610	0.24977	3.09	2.96	-2.95890	-3.64883
65-74	0.84812	0.37310	0.30081	0.31708	2.82	1.18	-2.85957	-3.03568
AVERAGE	0.75057	0.66666	0.15281	0.17861	4.91	3.73		
STANDARDIZED	0.17152	0.16036	0.03541	0.04153	4.84	3.86		
45-74, UNIVARIATE	0.83181	0.86580	0.15141	0.17783	5.49	4.87	-3.27169	-3.94572
45-74, BIVARIATE	0.70966	0.60641	0.15295	0.18062	4.64	3.36		
45-74, MULTIVARIATE	0.33457	0.39826	0.16029	0.18599	2.09	2.14		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.16 FOR MEN, 1.52 FOR WOMEN.

TABLE 14-15

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: ALBUMIN IN URINE, DEFINITE
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	12884	161	125	125.0	8554	218	255	254.9	2748	80	291	291.1	190	189.8	191.1
YES	188	6	319	319.1	274	11	401	401.5	116	5	431	431.0	381	380.6	327.2
UNKNOWN	42	0			34	1			8	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	16318	65	40	39.8	12140	163	134	134.3	4252	99	233	232.8	100	100.0	99.6
YES	508	4	79	78.7	306	5	163	163.4	114	5	439	438.6	151	150.9	162.6
UNKNOWN	40	0			40	0			16	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.97830	0.68932	0.42942	0.51914	2.28	1.33	-3.66388	-4.82449
55-64	0.48581	0.20237	0.32199	0.46159	1.51	0.44	-2.92420	-3.59014
65-74	0.42261	0.67730	0.44101	0.47940	0.96	1.41	-2.78347	-3.01919
AVERAGE	0.60960	0.50607	0.22718	0.28000	2.68	1.81		
STANDARDIZED	0.09928	0.00017	0.03505	0.04502	2.83	1.78		
45-74, UNIVARIATE	0.73643	0.42194	0.22686	0.27708	3.25	1.52	-3.23264	-3.89213
45-74, BIVARIATE	0.57308	0.50538	0.22869	0.27959	2.51	1.81		
45-74, MULTIVARIATE	0.11955	0.02129	0.24300	0.30229	0.49	0.07		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.04 FOR MEN, 0.69 FOR WOMEN.

TABLE 14-16

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: GLUCOSE IN URINE, DEFINITE OR TRACE
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	12782	159	124	124.4	8566	214	250	249.8	2750	77	280	280.0	187	186.7	187.8
YES	294	8	272	272.1	262	15	573	572.5	114	8	702	701.8	463	462.7	424.4
UNKNOWN	38	0			34	1			8	1					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	16668	65	39	39.0	12252	157	128	128.1	4298	99	230	230.3	97	96.6	97.2
YES	160	4	250	250.0	198	11	556	555.6	68	5	735	735.3	469	469.5	427.9
UNKNOWN	38	0			36	0			16	0					

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.81352	1.90144	0.37235	0.52789	2.18	3.60	-3.66855	-4.84588
55-64	0.89964	1.55865	0.28321	0.32986	3.18	4.73	-2.94518	-3.63809
65-74	1.01239	1.27262	0.39896	0.49505	2.54	2.57	-2.82477	-3.03047
AVERAGE	0.90300	1.56238	0.19625	0.24355	4.60	6.42		
STANDARDIZED	0.14935	0.18371	0.03288	0.02847	4.54	6.45		
45-74, UNIVARIATE	0.96639	1.65979	0.19457	0.24157	4.97	6.87	-3.24943	-3.92674
45-74, BIVARIATE	0.87682	1.56806	0.19607	0.24627	4.47	6.37		
45-74, MULTIVARIATE	0.77212	1.30537	0.21015	0.26164	3.67	4.99		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 0.13 FOR MEN, 0.76 FOR WOMEN.

TABLE 14-17

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: DIABETES MELLITUS
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	12780	155	121	121.3	8476	212	250	250.1	2702	75	278	277.6	184	184.5	186.4
YES	334	12	359	359.3	386	18	466	466.3	170	11	647	647.1	461	460.7	409.4
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	16584	63	38	38.0	12046	152	126	126.2	4144	94	227	226.8	94	94.3	96.6
YES	282	6	213	212.8	440	16	364	363.6	238	10	420	420.2	333	333.3	254.9
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT (SEE TEXT)		STANDARD ERROR		T-VALUE		INTERCEPT OF FUNCTION	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
45-54	1.13599	1.75877	0.31048	0.43597	3.66	4.03	-3.69451	-4.87228
55-64	0.66953	1.10837	0.25736	0.27231	2.60	4.07	-2.94394	-3.65390
65-74	0.92783	0.65778	0.34430	0.34687	2.69	1.90	-2.83400	-3.04655
AVERAGE	0.87650	1.09643	0.17173	0.19224	5.10	5.70		
STANDARDIZED	0.16903	0.20191	0.03276	0.03374	5.16	5.98		
45-74, UNIVARIATE	0.97416	1.31281	0.17092	0.19178	5.70	6.85	-3.26200	-3.95187
45-74, BIVARIATE	0.84439	1.01016	0.17251	0.19530	4.89	5.17		
45-74, MULTIVARIATE	0.84397	0.65507	0.17848	0.20800	4.73	3.15		

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.37 FOR MEN, 3.91 FOR WOMEN.

TABLE 14-18

AVERAGE ANNUAL INCIDENCE RATE FOR EVENT PER 10,000 PERSONS AT RISK AT EXAM,
BY SEX, AGE, AND LEVEL OF CHARACTERISTIC AT EXAM: FRAMINGHAM STUDY, 18-YEAR FOLLOW-UP

EVENT: CARDIOVASCULAR DISEASE
CHARACTERISTIC: GLUCOSE INTOLERANCE
PERSONS AT RISK: PERSONS FREE OF CARDIOVASCULAR DISEASE AT EXAM

	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	PERSON YEARS	EVENTS	RATE	SMOOTHED RATE	CRUDE RATE ACTUAL	CRUDE RATE SMOOTHED	AGE-ADJUSTED RATE
	MEN AGED 45-54 AT EXAM				MEN AGED 55-64 AT EXAM				MEN AGED 65-74 AT EXAM				MEN AGED 45-74 AT EXAM		
TOTAL	13114	167	127		8862	230	260		2872	86	299		194		
NO	12408	147	118	118.5	8206	202	246	246.2	2596	70	270	269.6	181	180.5	182.8
YES	706	20	283	283.3	656	28	427	426.8	276	16	580	579.7	391	390.7	359.0
UNKNOWN	0	0			0	0			0	0					
	WOMEN AGED 45-54 AT EXAM				WOMEN AGED 55-64 AT EXAM				WOMEN AGED 65-74 AT EXAM				WOMEN AGED 45-74 AT EXAM		
TOTAL	16866	69	41		12486	168	135		4382	104	237		101		
NO	16350	61	37	37.3	11736	147	125	125.3	4008	90	225	224.6	93	92.9	95.7
YES	516	8	155	155.0	750	21	280	280.0	374	14	374	374.3	262	262.2	207.3
UNKNOWN	0	0			0	0			0	0					

AGE AT EXAM	REGRESSION COEFFICIENT MEN	REGRESSION COEFFICIENT WOMEN	STANDARD ERROR MEN	STANDARD ERROR WOMEN	T-VALUE MEN	T-VALUE WOMEN	INTERCEPT OF FUNCTION MEN	INTERCEPT OF FUNCTION WOMEN
45-54	0.90613	1.44845	0.24489	0.38147	3.70	3.80	-3.71854	-4.89047
55-64	0.58914	0.83669	0.21037	0.23963	2.80	3.49	-2.96072	-3.66147
65-74	0.83321	0.54291	0.29291	0.29806	2.84	1.82	-2.86465	-3.05714
AVERAGE	0.74879	0.86194	0.14013	0.16773	5.34	5.14		
STANDARDIZED	0.19055	0.20605	0.03556	0.03823	5.36	5.39		
45-74, UNIVARIATE	0.81671	1.07320	0.13938	0.16722	5.86	6.42	-3.28455	-3.96744
45-74, BIVARIATE	0.72027	0.80116	0.14051	0.17017	5.13	4.71		
45-74, MULTIVARIATE	0.63397	0.58782	0.14702	0.17896	4.31	3.28		

REGRESSION COEFFICIENT OF THE LOGISTIC FUNCTION (SEE TEXT)

CHI SQUARE (2 DF) FOR DISPERSION AROUND AVERAGE COEFFICIENT: 1.07 FOR MEN, 3.52 FOR WOMEN.

BIBLIOGRAPHY

BIBLIOGRAPHY

Dawber, T.R., Meadors, G.F., and Moore, F.E., Jr.: Epidemiological approaches to heart disease: the Framingham Study. Am. J. Public Health 41: 279-286, Mar. 1951.

Dawber, T.R., Kannel, W.B., Love, D.E., and Streeper, R.D.: The electrocardiogram in heart disease detection; a comparison of the multiple and single lead procedures. Circulation 5: 559-566, Apr. 1952.

Dawber, T.R. and Moore, F.E.: Longitudinal study of heart disease in Framingham, Massachusetts: an interim report. In Research in Public Health. Papers presented at the 1951 Annual Conference of the Milbank Memorial Health Fund. New York, Milbank Memorial Fund, 1952, pp. 241-247.

Vander, J.B., Gaston, E.A., and Dawber, T.R.: Significance of solitary nontoxic thyroid nodules; preliminary report. N. Engl. J. Med. 251: 970-973, Dec. 9, 1954.

Stokes, J., III and Dawber, T.R.: Rheumatic heart disease in the Framingham Study. N. Engl. J. Med. 255: 1228-1233, Dec. 27, 1956.

Dawber, T.R., Moore, F.E., and Mann, G.V.: Coronary heart disease in the Framingham Study. Am. J. Public Health 47: pt. 2, 4-24, Apr. 1957.

Dawber, T.R. and Kannel, W.B.: An epidemiologic study of heart disease: the Framingham Study. Nutr. Rev. 16: 1-4, Jan. 1958.

Kannel, W.B., Dawber, T.R., and Cohen, M.E.: The electrocardiogram in neurocirculatory asthenia (anxiety, neurosis or neurasthenia): a study of 203 neurocirculatory asthenia patients and 757 healthy controls in the Framingham Study. Ann. Intern. Med. 49: 1351-1360, Dec. 1958.

THE FRAMINGHAM STUDY - Continued

Dawber, T.R., Kannel, W.B., Revotskie, N., Stokes, J., III, Kagan, A., and Gordon, T.: Some factors associated with the development of coronary heart disease; six years' follow-up experience in the Framingham Study. Am. J. Public Health 49: 1349-1356, Oct. 1959.

Gordon, T., Moore, F.E., Shurtleff, D., and Dawber, T.R.: Some methodologic problems in the long-term study of cardiovascular disease: observations on the Framingham Study. J. Chronic Dis. 10: 186-206, Sept. 1959.

Kagan, A., Gordon, T., Kannel, W.B., and Dawber, T.R.: Blood pressure and its relation to coronary heart disease in the Framingham Study. In Hypertension Volume VII. Drug Action, Epidemiology and Hemodynamics. Proceedings of the Council for High Blood Pressure Research, American Heart Association, November 1958. New York, American Heart Association, 1959, pp. 53-81.

Stokes, J., III and Dawber, T.R.: The "silent coronary": the frequency and clinical characteristics of unrecognized myocardial infarction in the Framingham Study. Ann. Intern. Med. 50: 1359-1369, June 1959.

Dawber, T.R.: Summary of recent literature regarding cigarette smoking and coronary heart disease. Circulation 22: 164-166, July 1960.

Cornfield, J., Gordon, T., and Smith, W.W.: Quantal response curves for experimentally uncontrolled variables. Bull. Int. Stat. Inst. 38: pt. 3, 97-115, 1961.

Dawber, T.R. and Kannel, W.B.: Susceptibility to coronary heart disease. Mod. Concepts Cardiovasc. Dis. 30: 671-675, July 1961.

Dawber, T.R., Kannel, W.B., Pearson, G., and Shurtleff, D.: Assessment of diet in the Framingham Study; methodology and preliminary observations. Health News 38: 4-6, Jan. 1961.

Kannel, W.B., Dawber, T.R., Kagan, A., Revotskie, N., and Stokes, J., III: Factors of risk in the development of coronary heart disease--six year follow-up experience; the Framingham Study. Ann. Intern. Med. 55: 33-50, July 1961.

THE FRAMINGHAM STUDY - Continued

Cicchinelli, A.L.: The composite of two Gaussian distributions as a model for blood pressure in man. Ph. D. Dissertation, University of Michigan, 1962, 127 pp.

Cornfield, J.: Joint dependence of risk of coronary heart disease on serum cholesterol and systolic blood pressure: a discriminant function analysis. Fed. Proc. 21: pt. 2, 58-61, July-Aug. 1962.

Dawber, T.R. and Kannel, W.B.: Application of epidemiology of coronary heart disease to medical practice. Mod. Med. 30: 85-101, Sept. 3, 1962.

Dawber, T.R. and Kannel, W.B.: Atherosclerosis and you: pathogenetic implications from epidemiologic observations. J. Am. Geriatr. Soc. 10: 805-821, Oct. 1962.

Dawber, T.R. and Kannel, W.B.: Computers in epidemiologic research; uses in the Framingham Study. Circ. Res. 11: pt. 2, 587-589, Sept. 1962.

Dawber, T.R., Kannel, W.B., Revotskie, N., and Kagan, A.: The epidemiology of coronary heart disease--the Framingham enquiry. Proc. R. Soc. Med. 55: 265-271, Apr. 1962.

Dawber, T.R., Pearson, G., Anderson, P., Mann, G.V., Kannel, W.B., Shurtleff, D., and McNamara, P.: Dietary assessment in the epidemiologic study of coronary heart disease: the Framingham Study. II. Reliability of measurement. Am. J. Clin. Nutr. 11: 226-234, Sept. 1962.

Doyle, J.T., Dawber, T.R., Kannel, W.B., Heslin, A.S., and Kahn, H.A.: Cigarette smoking and coronary heart disease; combined experience of the Albany and Framingham studies. N. Eng. J. Med. 266: 796-801, Apr. 19, 1962.

Gerende, L.J.: Some methodological problems in the study of the natural history of blood pressure: an examination of the Framingham Study data. Ph. D. Dissertation, University of Michigan, 1962, 201 pp.

THE FRAMINGHAM STUDY - Continued

Kagan, A., Dawber, T.R., Kannel, W.B., and Revotsike, N.: The Framingham Study: a prospective study of coronary heart disease. Fed. Proc. 21: pt. 2, 52-57, July-Aug. 1962.

Kahn, H.A.: A method for analyzing longitudinal observations on individuals in the Framingham Heart Study. In Goldfield, E.D. (Ed.): American Statistical Association, Proceedings of the Social Statistics Section, 1961. Washington, D. C., American Statistical Association, 1962, pp. 156-160.

Kahn, H.A.: Use of computers in analyzing Framingham data. Circ. Res. 11: pt. 2, 585-586, Sept. 1962.

Kannel, W.B., Dawber, T.R., Glennon, W.E., and Thorne, M.C.: Preliminary report: the determinants and clinical significance of serum cholesterol. Mass. J. Med. Tech. 4: 11-29, Fall, 1962.

Kannel, W.B., Kagan, A., Dawber, T.R., and Revotskie, N.: Epidemiology of coronary heart disease; implications for the practicing physician. Geriatrics 17: 675-690, Oct. 1962.

Mann, G.V., Pearson, G., Gordon, T., and Dawber, T.R.: Diet and cardiovascular disease in the Framingham Study. I. Measurement of dietary intake. Am. J. Clin. Nutr. 11: 200-225, Sept. 1962.

Revotskie, N., Kannel, W., Goldsmith, J.R., and Dawber, T.R.: Pulmonary function in a community sample. Am. Rev. Resp. Dis. 86: 907-911, Dec. 1962.

Dawber, T.R.: Coronary heart disease; morbidity in the Framingham Study and analysis of factors of risk. Bibl. Cardiol. 13: 9-24, 1963.

Dawber, T.R. and Kannel, W.B.: Coronary heart disease as an epidemiology entity. Am. J. Public Health 53: 433-437, Mar. 1963.

THE FRAMINGHAM STUDY - Continued

Dawber, T.R., Kannel, W.B., and Friedman, G.D.: The use of computers in cardiovascular epidemiology. Progr. Cardiovas. Dis. 5: 406-417, Jan. 1963.

Dawber, T.R., Kannel, W.B., and Lyell, L.P.: An approach to longitudinal studies in a community: the Framingham Study. Ann. N.Y. Acad. Sci. 107: 539-556, May 22, 1963.

Kagan, A., Kannel, W.B., Dawber, T.R., and Revotskie, N.: The coronary profile. Ann. N.Y. Acad. Sci. 97: 883-894, Aug. 29, 1963.

Kannel, W.B., Barry, P., and Dawber, T.R.: Immediate mortality in coronary heart disease. The Framingham Study. In Proceedings of the IV World Congress of Cardiology held in Mexico City, October 7-13, 1962. Coronary Insufficiency: Myocardial Infarction. Mexico, International Society of Cardiology, 1963, Vol. IV-B, pp. 176-188.

Dawber, T.R., Kannel, W.B., and McNamara, P.M.: The prediction of coronary heart disease. In Moore, S.R., Jr. (Ed.): Transactions of the Association of Life Insurance Medical Directors of America, Seventy-Second Annual Meeting, October 16, 1963, New York City. New York, Recording & Statistical Company, 1964, vol. 47, pp. 3-34.

Doyle, J.T., Dawber, T.R., Kannel, W.B., Kinch, S.H., and Kahn, H.A.: The relationship of cigarette smoking to coronary heart disease; the second report of the combined experience of the Albany, N. Y., and Framingham, Mass., studies. JAMA 190: 886-890, Dec. 7, 1964.

Kannel, W.B.: Cigarette smoking and coronary heart disease. Ann. Intern. Med. 60: 1103-1106, June 1964.

Kannel, W.B., Dawber, T.R., Friedman, G.D., Glennon, W.E., and McNamara, P.M.: Risk factors in coronary heart disease; an evaluation of several serum lipids as predictors of coronary heart disease. Ann. Intern. Med. 61: 888-899, Nov. 1964.

THE FRAMINGHAM STUDY - Continued

Dawber, T.R.: Heart attack--what's the risk? Today's Health 43: 46-47, 62-64, Aug. 1965.

Hall, A.P.: Correlations among hyperuricemia, hypercholesterolemia, coronary disease and hypertension. Arthritis Rheum. 8: pt. 1, 846-852, Oct. 1965.

Higgins, I.T.T., Kannel, W.B., and Dawber, T.R.: The electrocardiogram in epidemiological studies; reproducibility, validity, and international comparison. Br. J. Prev. Soc. Med. 19: 53-68, Apr. 1965.

Kannel, W.B., Dawber, T.R., and McNamara, P.M.: Vascular disease of the brain - epidemiologic aspects: the Framingham Study. Am. J. Public Health 55: 1355-1366, Sept. 1965.

Kannel, W.B., Dawber, T.R., Thomas, H.E., Jr., and McNamara, P.M.: Comparison of serum lipids in the prediction of coronary heart disease. R.I. Med. J. 48: 243-250, May 1965.

Kannel, W.B., Widmer, L.K., and Dawber, T.R.: Gefahrdung durch coronare Herzkrankheit; Folgerungen fur die Praxis aus 10 Jahren Framingham-Studie. /Susceptibility to coronary heart disease; preventive implications of 10 years of observation in the Framingham Study./ Schweiz. Med. Wochenschr. 95: 18-24, Jan. 2, 1965.

Dawber, T.R. and Kannel, W.B.: The Framingham Study; an epidemiological approach to coronary heart disease. Circulation 34: 553-555, Oct. 1966.

Dawber, T.R., Kannel, W.B., and Friedman, G.D.: Vital capacity, physical activity and coronary heart disease. In Raab, W. (Ed.): Prevention of Ischemic Heart Disease: Principles and Practice. Springfield, Ill., Charles C Thomas, 1966, pp. 254-265.

Friedman, G.D., Kannel, W.B., and Dawber, T.R.: The epidemiology of gallbladder disease: observations in the Framingham Study. J. Chronic Dis. 19: 273-292, Mar. 1966.

THE FRAMINGHAM STUDY - Continued

Friedman, G.D., Kannel, W.B., Dawber, T.R., and McNamara, P.M.: Comparison of prevalence, case history and incidence data in assessing the potency of risk factors in coronary heart disease. Am. J. Epidemiol. 83: 366-378, Mar. 1966.

Kahn, H.A. and Dawber, T.R.: The development of coronary heart disease in relation to sequential biennial measures of cholesterol in the Framingham Study. J. Chronic Dis. 19: 611-620, May 1966.

Kannel, W.B.: An epidemiologic study of cerebrovascular disease. In Millikan, C.H., Siekert, R.G., and Whisnant, J.P. (Eds.): Cerebral Vascular Diseases. Transactions of the Fifth Conference held under the Auspices of The American Neurological Association and The American Heart Association, Princeton, New Jersey, January 5-7, 1966. New York, Grune & Stratton, 1966, pp. 53-66.

Kannel, W.B.: Habits and Coronary Heart Disease: The Framingham Heart Study. U.S. Dept. of Health, Education, and Welfare, Public Health Service Publ. No. 1515. Wash., D.C., U.S. Govt. Print. Off., 1966, 13 pp.

Kannel, W.B., Dawber, T.R., and McNamara, P.M.: Detection of the coronary-prone adult: the Framingham Study. J. Iowa Med. Soc. 56: 26-34, Jan. 1966.

Thomas, H.E., Jr., Kannel, W.B., Dawber, T.R., and McNamara, P.M.: Cholesterol-phospholipid ratio in the prediction of coronary heart disease; the Framingham Study. N. Engl. J. Med. 274: 701-705, Mar. 31, 1966.

Dawber, T.R., Kannel, W.B., Kagan, A., Donabedian, R.K., McNamara, P.M., and Pearson, G.: Environmental factors in hypertension. In Stamler, J., Stamler, R., and Pullman, T.N. (Eds.): The Epidemiology of Hypertension. Proceedings of an International Symposium sponsored by the Chicago Heart Association and the American Heart Association, Chicago, Illinois, February 3-7, 1964. New York, Grune & Stratton, 1967, pp. 255-288.

THE FRAMINGHAM STUDY - Continued

Dawber, T.R. and McNamara, P.M.: Coronary heart disease: identification of susceptible individuals. In Brest, A.N. and Moyer, J.H. (Eds.): Atherosclerotic Vascular Disease. A Hahnemann Symposium. New York, Appleton-Century-Crofts, 1967, pp. 130-146.

Friedman, G.D., Kannel, W.B., Dawber, T.R., and McNamara, P.M.: An evaluation of follow-up methods in the Framingham Heart Study. Am. J. Public Health 57: 1015-1024, June 1967.

Hall, A.P., Barry P.E., Dawber, T.R., and McNamara, P.M.: Epidemiology of gout and hyperuricemia; a long-term population study. Am. J. Med. 42: 27-37, Jan. 1967.

Kannel, W.B.: Habitual level of physical activity and risk of coronary heart disease: the Framingham Study. Can. Med. Assoc. J. 96: 811-812, Mar. 25, 1967.

Kannel, W.B., Brand, N., Skinner, J.J., Jr., Dawber, T.R., and McNamara, P.M.: The relation of adiposity to blood pressure and development of hypertension; the Framingham Study. Ann. Intern. Med. 67: 48-59, July 1967.

Kannel, W.B., Castelli, W.P., and McNamara, P.M.: The coronary profile: 12-year follow-up in the Framingham Study. J. Occup. Med. 9: 611-619, Dec. 1967.

Kannel, W.B., LeBauer, E.J., Dawber, T.R., and McNamara, P.M.: Relation of body weight to development of coronary heart disease: the Framingham Study. Circulation 35: 734-744, Apr. 1967.

Kannel, W.B., Troy, B.L., and McNamara, P.M.: Epidemiology of Stroke. U.S. Dept. of Health, Education, and Welfare, Public Health Service Publ. No. 1607. Wash., D.C., U.S. Govt. Print. Off., 1967, 8 pp.

Thomas, H.E., Jr., Kannel, W.B., and McNamara, P.M.: Obesity: a hazard to health. Med. Times 95: 1099-1106, Oct. 1967.

THE FRAMINGHAM STUDY - Continued

Truett, J., Cornfield, J., and Kannel, W.: A multivariate analysis of the risk of coronary heart disease in Framingham. J. Chronic Dis. 20: 511-524, July 1967.

Walker, S.H. and Duncan, D.B.: Estimation of the probability of an event as a function of several independent variables. Biometrika 54: 167-179, June 1967.

Dawber, T.R. and Kannel, W.B.: The early diagnosis of coronary heart disease. In Sharp, C.L.E.H. and Keen, H. (Eds.): Presymptomatic Detection and Early Diagnosis: A Critical Appraisal. London, Pitman Medical, 1968, pp. 257-281.

Dawber, T.R. and Thomas H.E.: Prophylaxis of coronary heart disease, stroke, and peripheral atherosclerosis. Ann. N.Y. Acad. Sci. 149: 1038-1057, Nov. 21, 1968.

Kannel, W.B., Castelli, W.P., and McNamara, P.M.: Cigarette smoking and risk of coronary heart disease. Epidemiologic clues to pathogenesis. The Framingham Study. In Wynder, E.L. and Hoffman, D. (Eds.): Toward a Less Harmful Cigarette. A Workshop held at the World Conference on Smoking and Health, September 11-13, 1967. National Cancer Institute Monograph No. 28. U.S. Dept. of Health, Education, and Welfare, Public Health Service, Wash., D.C., U.S. Govt. Print. Off., June 1968, pp. 9-20.

Kannel, W.B., Castelli, W.P., and McNamara, P.M.: Epidemiology of acute myocardial infarction; the Framingham Study. Med. Today 2: 56-71, Aug.-Sept.-Oct. 1968.

Vander, J.B., Gaston, E.A., and Dawber, T.R.: The significance of nontoxic thyroid nodules; final report of a 15-year study of the incidence of thyroid malignancy. Ann. Intern. Med. 69: 537-540, Sept. 1968.

Damon, A., Damon, S.T., Harpending, H.C., and Kannel, W.B.: Predicting coronary heart disease from body measurements of Framingham males. J. Chronic Dis. 21: 781-802, Apr. 1969.

THE FRAMINGHAM STUDY - Continued

Hall, A.P.: Observations on subjects developing a positive test for rheumatoid factor in a prospective study. Arthritis Rheum. 12: 301, 1969. (Abstract)

Havlik, R.J., Feinleib, M., Garrison, R.J., and Kannel, W.B.: Blood-groups and coronary heart disease. Lancet 2: 269-270, Aug. 2, 1969.

Kannel, W.B., Castelli, W.P., and McNamara, P.M.: Serum lipid fractions and risk of coronary heart disease; the Framingham Study. Minn. Med. 52: 1225-1230, Aug. 1969.

Kannel, W.B., Castelli, W.P., McNamara, P.M., and Sorlie, P.: Some factors affecting morbidity and mortality in hypertension; the Framingham Study. Milbank Mem. Fund Q. 47: pt. 2, 116-142, July 1969.

Kannel, W.B., Gordon, T., and Offutt, D.: Left ventricular hypertrophy by electrocardiogram; prevalence, incidence, and mortality in the Framingham Study. Ann. Intern. Med. 71: 89-105, July 1969.

Kannel, W.B. and McNamara, P.M.: The evidence for excess risk in coronary disease. Minn. Med. 52: 1197-1201, Aug. 1969.

Kannel, W.B., Pearson, G., and McNamara, P.M.: Obesity as a force of morbidity. In Heald, F.P. (Ed.): Adolescent Nutrition and Growth. New York, Appleton-Century-Crofts, 1969, pp. 51-71.

Kannel, W.B., Schwartz, M.J., and McNamara, P.M.: Blood pressure and risk of coronary heart disease: the Framingham Study. Dis. Chest 56: 43-52, July 1969.

Weiss, A.N., Jobe, C.L., Gordon, T., Lange, P.H., and Frommer, P.L.: Relationship of premature ventricular contractions and left ventricular hypertrophy to sudden cardiac death. Circulation 40: suppl. 3, III-213, Oct. 1969 (Abstract).

THE FRAMINGHAM STUDY - Continued

Gordon, T. and Kannel, W.B.: The Framingham, Massachusetts, Study twenty years later. In Kessler, I.I. and Levin, M.L. (Eds.): The Community as an Epidemiologic Laboratory; A Casebook of Community Studies. Baltimore, The Johns Hopkins Press, 1970, pp. 123-146.

Kannel, W.B.: Coronary heart disease epidemiology: implications for practice. The Framingham Study. Aktuel. Probl. Angiol. 7: 82-97, 1970.

Kannel, W.B.: The epidemiology of coronary heart disease: methodologic considerations. The Framingham Study. Aktuel. Probl. Angiol. 7: 25-42, 1970.

Kannel, W.B.: The Framingham Study and chronic disease prevention. Hosp. Pract. 5: 78-94, Mar. 1970.

Kannel, W.B.: Physical exercise and lethal atherosclerotic disease. N. Engl. J. Med. 282: 1153-1154, May 14, 1970.

Kannel, W.B., Gordon, T., Castelli, W.P., and Margolis, J.R.: Electrocardiographic left ventricular hypertrophy and risk of coronary heart disease; the Framingham Study. Ann. Intern. Med. 72: 813-822, June 1970.

Kannel, W.B., McNamara, P.M., Feinleib, M., and Dawber, T.R.: The unrecognized myocardial infarction; forteen-year follow-up experience in the Framingham Study. Geriatrics 25: 75-87, Jan. 1970.

Kannel, W.B., Skinner, J.J., Jr., Schwartz, M.J., and Shurtleff, D.: Intermittent claudication; incidence in the Framingham Study. Circulation 41: 875-883, May 1970.

Kannel, W.B., Wolf, P.A., Verter, J., and McNamara, P.M.: Epidemiologic assessment of the role of blood pressure in stroke; the Framingham Study. JAMA 214: 301-310, Oct. 12, 1970.

Gordon, T. and Kannel, W.B.: Premature mortality from coronary heart disease; the Framingham Study. JAMA 215: 1617-1625, Mar. 8, 1971.

THE FRAMINGHAM STUDY - Continued

Kannel, W.B.: Cholesterol: a potent contributor to atherogenesis? Med. Counterpoint 3: 31-42, 1971.

Kannel, W.B.: Current status of the epidemiology of brain infarction associated with occlusive arterial disease. Stroke 2: 295-318, July-Aug. 1971.

Kannel, W.B.: Lipid profile and the potential coronary victim. Am. J. Clin. Nutr. 24: 1074-1081, Sept. 1971.

Kannel, W.B.: Medical evaluation for physical exercise programs. In Morse, R.L. (Ed.): Exercise and the Heart. Springfield, Ill., Charles C Thomas, 1971, pp. 79-97.

Kannel, W.B.: Habits and heart disease. In Palmore, E. and Jeffers, F.C. (Eds.): Prediction of Life Span. Lexington, Mass., D. C. Heath, 1971, pp. 61-70.

Kannel, W.B., Castelli, W.P., Gordon, T., and McNamara, P.M.: Serum cholesterol, lipoproteins, and the risk of coronary heart disease; the Framingham Study. Ann. Intern. Med. 74: 1-12, Jan. 1971.

Kannel, W.B., Castelli, W.P., Verter, J., and McNamara, P.M.: Relative importance of factors of risk in the pathogenesis of coronary heart disease: the Framingham Study. In Russek, H.I. and Zohman, B.L. (Eds.): Coronary Heart Disease. A Medical-Surgical Symposium sponsored by the American College of Cardiology and St. Barnabas Hospital, New York City, December 13-15, 1968. Philadelphia, J. B. Lippincott, 1971, pp. 97-114.

Kannel, W.B. and Dawber, T.R.: The prudent management of the coronary-prone subject; coping with risk factors. In Russek, H.I. and Zohman, B.L. (Eds.): Cardiovascular Therapy: the Art and the Science. Baltimore, Williams & Wilkins, 1971, pp. 225-236.

Kannel, W.B., Garcia, M.J., McNamara, P.M., and Pearson, G.: Serum lipid precursors of coronary heart disease. Hum. Pathol. 2: 129-151, Mar. 1971.

THE FRAMINGHAM STUDY - Continued

Kannel, W.B., Gordon, T., and Schwartz, M.J.: Systolic versus diastolic blood pressure and risk of coronary heart disease; the Framingham Study. Am. J. Cardiol. 27: 335-345, Apr. 1971.

Kannel, W.B., Gordon, T., Sorlie, P., and McNamara, P.M.: Physical activity and coronary vulnerability: the Framingham Study. Cardiol. Digest 6: 28-40, June 1971.

Kannel, W.B. and Shurtleff, D.: The natural history of arteriosclerosis obliterans. In Brest, A.N. and Gifford, R.W. (Eds.): Cardiovascular Clinics; Peripheral Vascular Disease. Philadelphia, F. A. Davis, 1971, vol. 3, pp. 37-52.

Kannel, W.B., Sorlie, P., and McNamara, P.: The relation of physical activity to risk of coronary heart disease; the Framingham Study. In Larsen, O.A. and Malmborg, R.O. (Eds.): Coronary Heart Disease and Physical Fitness. Proceedings of a Symposium held in Copenhagen, September 2-5, 1970. Baltimore, University Park Press, 1971, pp. 256-260.

McKee, P.A., Castelli, W.P., McNamara, P.M., and Kannel, W.B.: The natural history of congestive heart failure: the Framingham Study. N. Engl. J. Med. 285: 1441-1446, Dec. 23, 1971.

Truett, J. and Sorlie, P.: Changes in successive measurements and the development of disease: the Framingham Study. J. Chronic Dis. 24: 349-361, Aug. 1971.

Dawber, T.R. and Kannel, W.B.: Current status of coronary prevention; lessons from the Framingham Study. Prevent. Med. 1: 499-512, Dec. 1972.

Gordon, T. and Kannel, W.B.: Predisposition to atherosclerosis in the head, heart, and legs; the Framingham Study. JAMA 221: 661-666, Aug. 14, 1972.

Gordon, T. and Kannel, W.B.: The prospective study of cardiovascular disease. In Stewart, G.T. (Ed.): Trends in Epidemiology: Application to Health Service Research and Training. Springfield, Ill., Charles C Thomas, 1972, pp. 189-211.

THE FRAMINGHAM STUDY - Continued

Kannel, W.B. and Castelli, W.P.: The Framingham Study of coronary disease in women. Med. Times 100: 173-184, May 1972.

Kannel, W.B., Castelli, W.P., McNamara, P.M., McKee, P.A., and Feinleib, M.: Role of blood pressure in the development of congestive heart failure; the Framingham Study. N. Engl. J. Med. 287: 781-787, Oct. 19, 1972.

Kannel, W.B. and Dawber, T.R.: Atherosclerosis as a pediatric problem. J. Pediatr. 80: 544-554, pt. 1, Apr. 1972.

Kannel, W.B. and Dawber, T.R.: Contributors to coronary risk implications for prevention and public health: the Framingham Study. Heart & Lung 1: 797-810, Nov.-Dec. 1972.

Kannel, W.B. and Feinleib, M.: Natural history of angina pectoris in the Framingham Study; prognosis and survival. Am. J. Cardiol. 29: 154-163, Feb. 1972.

Kannel, W.B., Gordon, T., Wolf, P.A., and McNamara, P.: Hemoglobin and the risk of cerebral infarction: the Framingham Study. Stroke 3: 409-420, July-Aug. 1972.

Dawber, T.R., Thomas, H.E., Jr., and McNamara, P.M.: Characteristics of the dicrotic notch of the arterial pulse wave in coronary heart disease. Angiology 24: 244-255, Apr. 1973.

Garcia, M., McNamara, P., Gordon, T., and Kannel, W.B.: Cardiovascular complications in diabetics. Adv. Metab. Disord. Suppl. 2: 493-499, 1973.

Gordon, T. and Kannel, W.B.: The effects of overweight on cardiovascular diseases. Geriatrics 28: 80-88, Aug. 1973.

Kannel, W.B.: Obesity and coronary heart disease. NUTRA 1: Mar. 1973, 4 pp.

THE FRAMINGHAM STUDY - Continued

Kannel, W.B.: The Natural History of Myocardial Infarction: the Framingham Study. Leiden, The Netherlands, Leiden University Press, 1973, 35 pp.

Kannel, W.B.: Coronary profile: ethical considerations. In Davies, D.F. and Tchobanoff, J.B. (Eds.): Health Evaluation: An Entry to the Health Care System. New York, Intercontinental Medical Book Corp., 1973, pp. 141-150.

Kannel, W.B. and Dawber, T.R.: Hypertensive cardiovascular disease: the Framingham Study. In Onesti, G., Kim, K.E., and Moyer, J.H. (Eds.): Hypertension: Mechanisms and Management. New York, Grune & Stratton, 1973, pp. 93-110.

Kannel, W.B. and Gordon, T.: Assessment of coronary vulnerability--the Framingham Study. In Early Phases of Coronary Heart Disease. Skandia International Symposia, September 19-21, 1972. Stockholm, Nordiska Bokhandelns Forlag, 1973, pp. 123-143.

Kannel, W.B. and Shurtleff, D.: The Framingham Study; cigarettes and the development of intermittent claudication. Geriatrics 28: 61-68, Feb. 1973.

Margolis, J.R., Kannel, W.B., Feinleib, M., Dawber, T.R., and McNamara, P.M.: Clinical features of unrecognized myocardial infarction--silent and symptomatic. Eighteen year follow-up: the Framingham Study. Am. J. Cardiol. 32: 1-7, July 1973.

Wolf, P.A., Kannel, W.B., McNamara, P.M., and Gordon, T.: The role of impaired cardiac function in atherothrombotic brain infarction: the Framingham Study. Am. J. Public Health 63: 52-58, Jan. 1973.

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Tavia Gordon

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Section 7. Average two-year incidence rates by age at exam preceding event and sex, with total number of events and total population at risk
Manning Feinleib

Section 8. Two-year incidence by exam interval by age at Exam 1 and sex
Manning Feinleib

Criteria: William B. Kannel, William P. Castelli, and Patricia M. McNamara

Section 9. Population alive with specified events by sex, age and level of characteristic at exam
Dewey Shurtleff

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Section 29. Means at Each Examination and Inter-examination Variation of Specified Characteristics: Framingham Study, Exam 1 to Exam 10.
Tavia Gordon and Dewey Shurtleff

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